TC-FX420R/FX422R

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model

Photo: TC-FX420R

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SPECIFICATIONS

Recording system
4-track 2-channel stereo
Fast-forward and rewind time
Approx. 100 sec. (with C-60 cassette)
Bias frequency 105 kHz
Signal-to-noise ratio (NAB, at peak level)

Cassette \ DOLBY NR switch	OFF	B-TYPE ON	C-TYPE ON
TYPE IV (Sony METAL-ES)	55 dB	65 dB	71 dB
TYPE II (Sony UCX)	55 dB	63 dB	69 dB
TYPE I (Sony HF-S)	52 dB	61 dB	67 dB

Total harmonic distortion
1.0% (with Sony METAL-ES cassette)
Frequency response
DOLBY NR OFF
- With TYPE IV cassette (Sony METAL-ES)
  20 - 17,000 Hz
  30 - 16,000 Hz (±3 dB)
  30 - 13,000 Hz (±3 dB, 0 VU recording)
  30 - 16,000 Hz (DIN)
- With TYPE II cassette (Sony UCX)
  20 - 17,000 Hz
  30 - 14,000 Hz (±3 dB)
  30 - 14,000 Hz (DIN)
- With TYPE I cassette (Sony HF-S)
  20 - 16,000 Hz
  30 - 13,000 Hz (DIN)

Wow and flutter 0.05% WRMS (NAB)
±0.14% (DIN)
Inputs
Microphone inputs (phone jacks)
Sensitivity 0.25 mV (−70 dB)
For a low impedance microphone
Line inputs (phono jacks)
Sensitivity 77.5 mV (−20 dB)
Input impedance 47 kilohms

Tape Transport Mechanism Type	TCM-150R8

Outputs
Line outputs (phono jacks)
Output level 0.44 V (−5 dB) at load impedance 47 kilohms
Load impedance over 10 kilohms
Headphone output (stereo phone jack)
Output level −28 dB at a load impedance of 8 ohms

— Continued on next page —

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

MICROFILM

STEREO CASSETTE DECK

SONY®

AUD

General

Power requirements

AEP Model: 220 V ac, 50/60 Hz
(240 V ac adjustable by authorized Sony personnel)
UK Model: 240 V ac, 50 Hz
(220 V ac adjustable by authorized Sony personnel)
US, Canadian Model: 120 V ac, 60 Hz
E Model: 120, 220 or 240 V ac adjustable, 50/60 Hz

Power consumption
14 watts

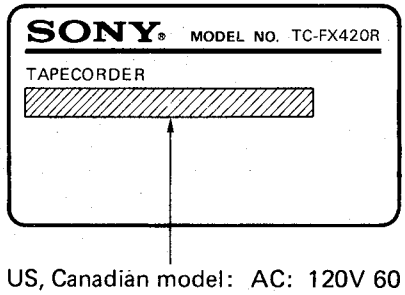
Dimensions: Approx. 430 × 105 × 245 mm (w/h/d) (17 × 4¼ × 9¾ inches) including projecting parts and controls

Weight: Approx. 3.8 kg (8 lbs 7 oz)

MODEL IDENTIFICATION

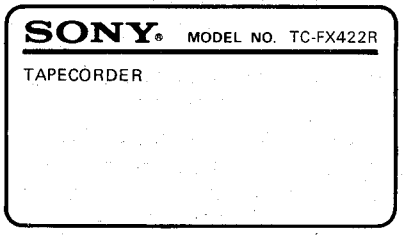
– Specification Label on Jack Plate –

TC-FX420R



US, Canadian model: AC: 120V 60 Hz 14W
AEP model: AC: 220V 50/60 Hz 14W
UK model: AC: 240V 50/60 Hz 14W
E model: AC: 120, 220, 240V 50/60 Hz 14W

TC-FX422R



SAFETY CHECK-OUT (US Model)

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

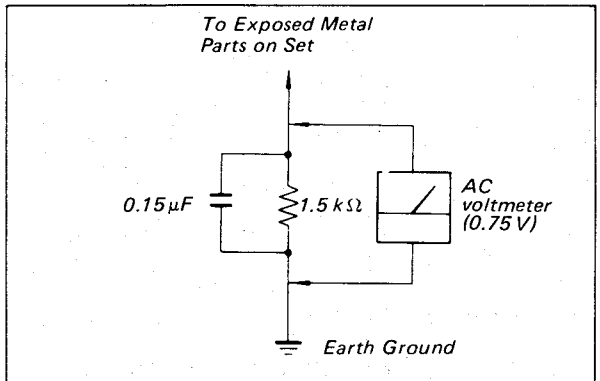


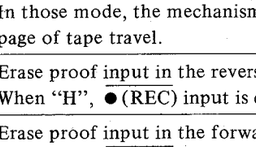
Fig. A. Using an AC voltmeter to check AC leakage.

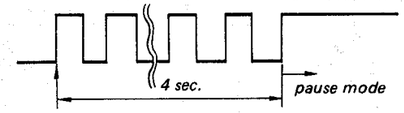
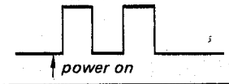
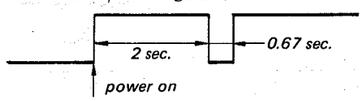
TC-FX420R/FX422R

SECTION 1
OUTLINE

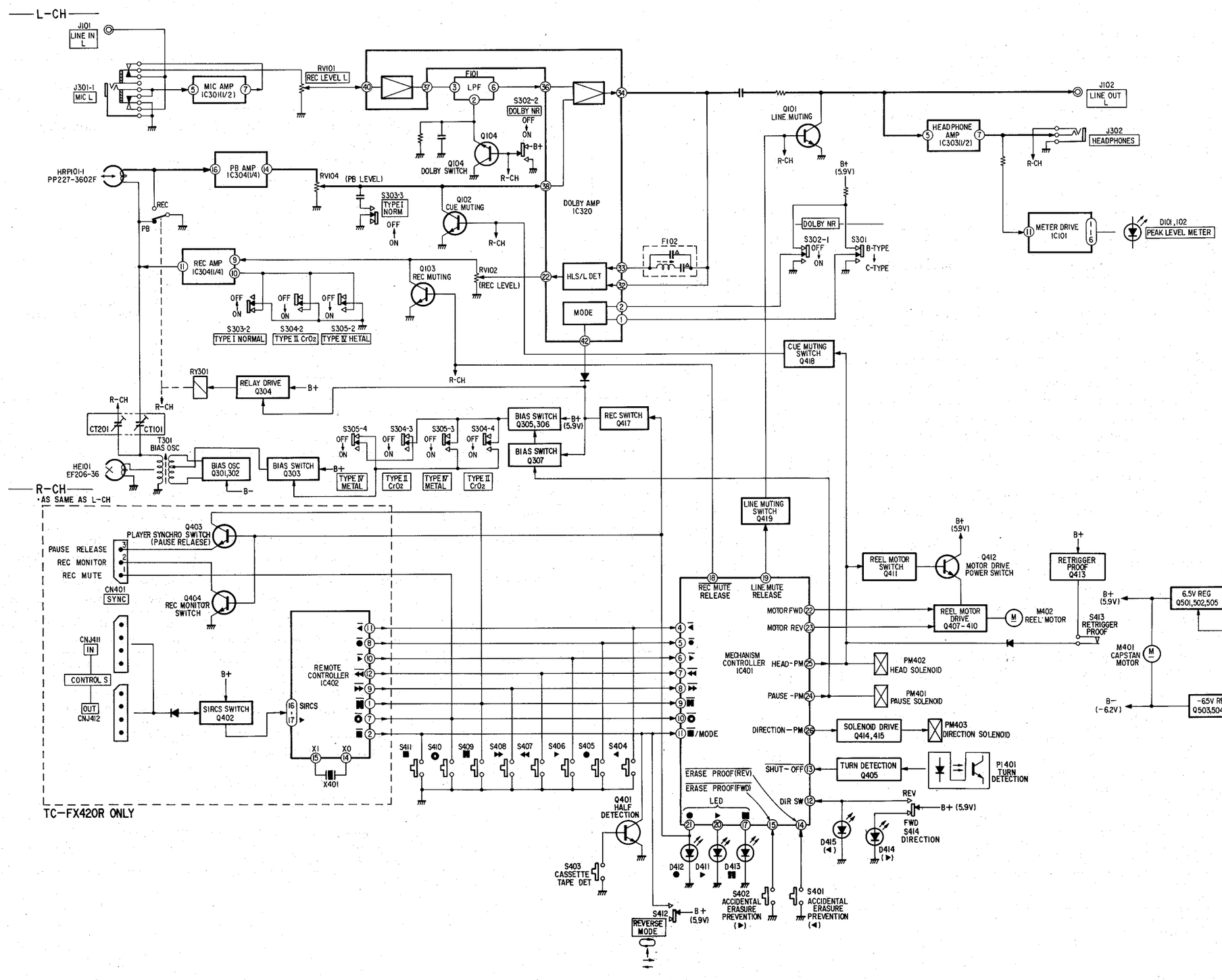
1-1. CIRCUIT DESCRIPTION

TC9312N-002 (IC401) FUNCTION OF EACH TERMINAL

Terminal No.	Name	In/Out	Function
1	GND	–	Grounding terminal of power supply.
2	OSC	–	Clock oscillator terminal. (approx. 6.4 kHz in this set.) 
3	$\overline{\text{RESET}}$	Input	Signal input to put all of the operation of the set into the initial state.
4	◀ ($\overline{\text{REV}}$)	Input	Signal input to command the set to reverse playback the tape.
5	● ($\overline{\text{REC}}$)	Input	Signal input to command the set to become in record mode.
6	▶ ($\overline{\text{FWD}}$)	Input	Signal input to command the set to forward playback the tape.
7	◀◀ ($\overline{\text{FR}}$)	Input	Signal input to command the mechanism to set in fast-reverse mode.
8	▶▶ ($\overline{\text{FF}}$)	Input	Signal input to command the mechanism to set in fast-forward mode.
9	$\overline{\text{II}}$ (PAUSE)	Input	Command-signal input to make the set in stop operation temporarily, i.e., pause, or restart operation during playback and record mode. In auto-space operation, this terminal is command-signal input to release record muting mode in case $\overline{\text{REC MUTE}}$ is in "H".
10	$\overline{\text{o}}$ (REC MUTE)	Input	Command-signal input to mute record signal and effective only in record and record-pause mode. When this signal is in "L", pause operation is reset. Muting operation is maintained for four seconds after disappearance of this signal. Auto space operation is released on receipt of $\overline{\text{PAUSE}}$ input in "L" when this input is in "H".
11	$\overline{\text{■}}$ /MODE	Input	This terminal has 3 state value. Signal input to command the DIRECTION MODE (↻ or ⇄) and to release a mode designated by other input switches. Signal: "H" potential (+5.6 V): DIRECTION MODE ↻ Middle potential (+3 V): DIRECTION MODE ⇄ "L" pulse (3 V or 5.6 V): stop mode
12	DIRECTION SW	Input	FWD/REV identification input pin. Inputs "L" for FWD, "H" for REV.
13	$\overline{\text{SHUT-OFF}}$	Input	Pulse signal is put into this terminal during playback, record, fast-forward and fast-reverse mode. In those mode, the mechanism is shut off in two seconds after the stoppage of tape travel.
14	ERASE PROOF (◀)	Input	Erase proof input in the reverse direction. When "H", ● ($\overline{\text{REC}}$) input is canceled.
15	ERASE PROOF (▶)	Input	Erase proof input in the forward direction. When "H", ● ($\overline{\text{REC}}$) input is canceled.
16			Not used.

Terminal No.	Name	In/Out	Function
17	▮▮ LED	Output	Puts out "H" signal in pause mode. Puts out "H" and "L" signals alternatly during record muting and reset mode (power on). in record muting (auto space)  record mute on in reset (power on) 
18	$\overline{\text{REC MUTE}}$ RELEASE	Output	Puts out "L" signal in record mode. Otherwise; H.
19	LINE MUTE RELEASE	Output	Puts out "H" signal in playback and record mode. Otherwise; L.
20	▶ -LED	Output	Puts out "H" signal in playback and record mode. Otherwise; L.
21	● -LED	Output	Puts out "H" signal in record mode. Otherwise; L.
22	MOTOR-FWD	Output	This terminal puts out for motor rotating signal to forward. "H": forward-playback, forward-record, fast-forward. Otherwise; L.
23	MOTOR- REV	Output	This terminal puts out for motor rotating signal to reverse. "H": reverse-playback, fast-reverse, reverse-record. Otherwise; L.
24	PAUSE-PM	Output	Puts out "H" signal in playback, record, fast-forward, fast-reverse, play-pause, and record-pause mode to release the brake. Otherwise; L.
25	HEAD-PM	Output	Puts out "H" signal in playback and record mode. Otherwise; L.
26	DIRECTION-PM	Output	Puts out "H" pulse (5.4 V / 0 V) signal when the head rotates. (head direction: forward to reverse or reverse to forward)
27	$\overline{\text{TIMER}}$	Output	This terminal puts out signal as shown below. TIMER PLAY/REC signal  This terminal not used on TC-FX420R/FX422R.
28	VDD	–	6.2 V power supply terminal.

1-2. BLOCK DIAGRAM



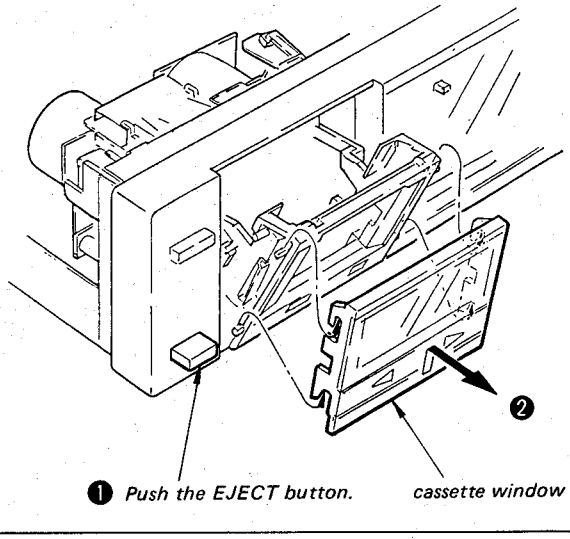
SECTION 2
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

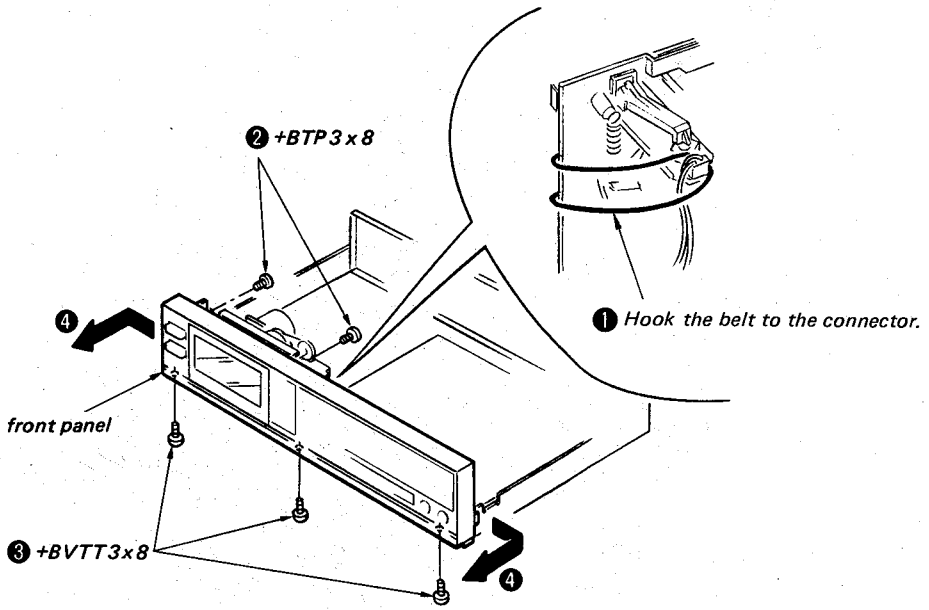
CASE REMOVAL

Remove case by taking out four screws securing case.

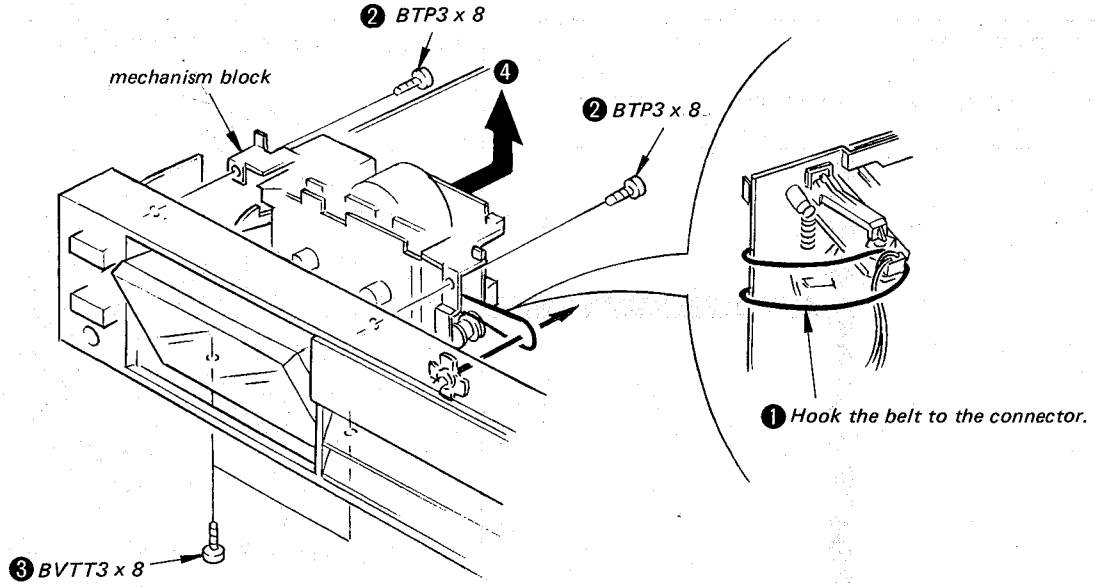
CASSETTE WINDOW REMOVAL



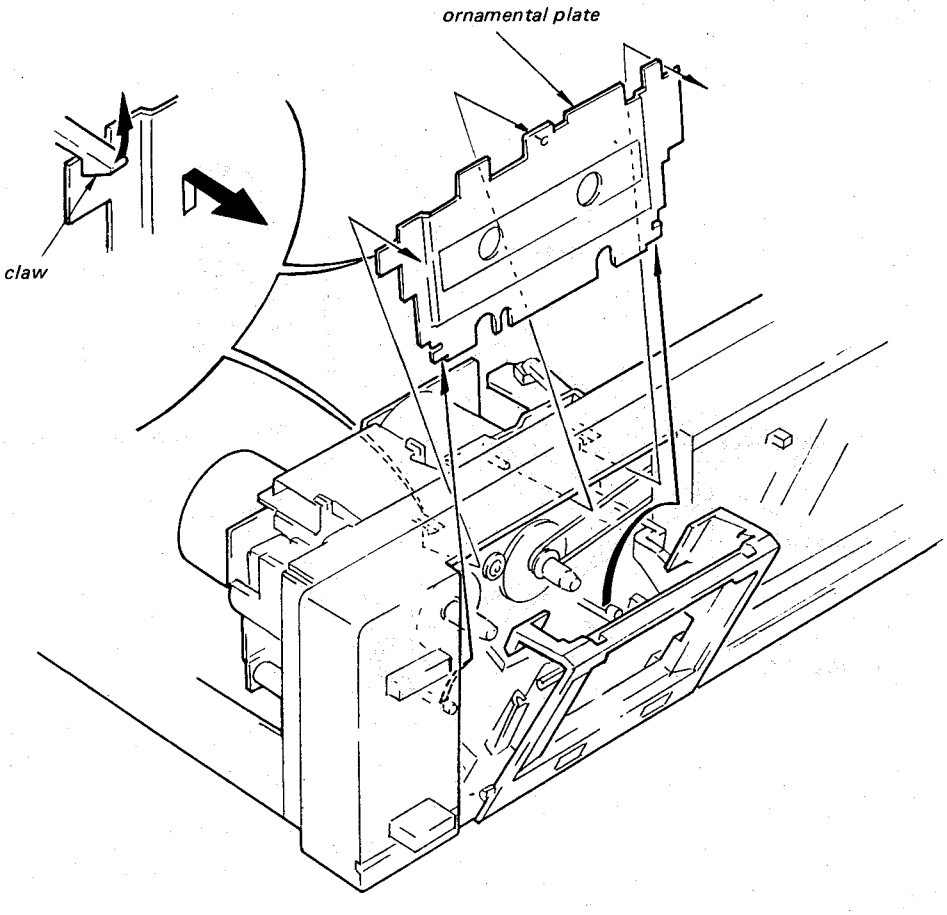
FRONT PANEL REMOVAL



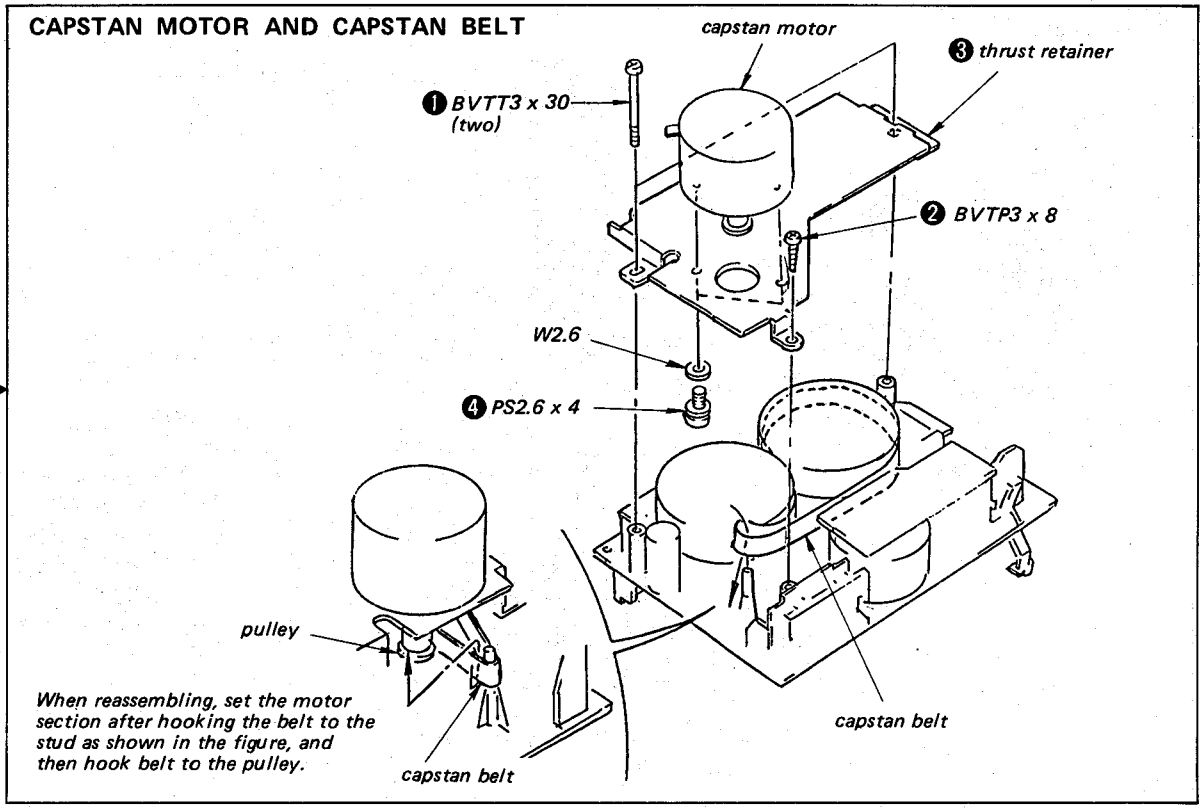
MECHANISM BLOCK



ORNAMENTAL PLATE REMOVAL

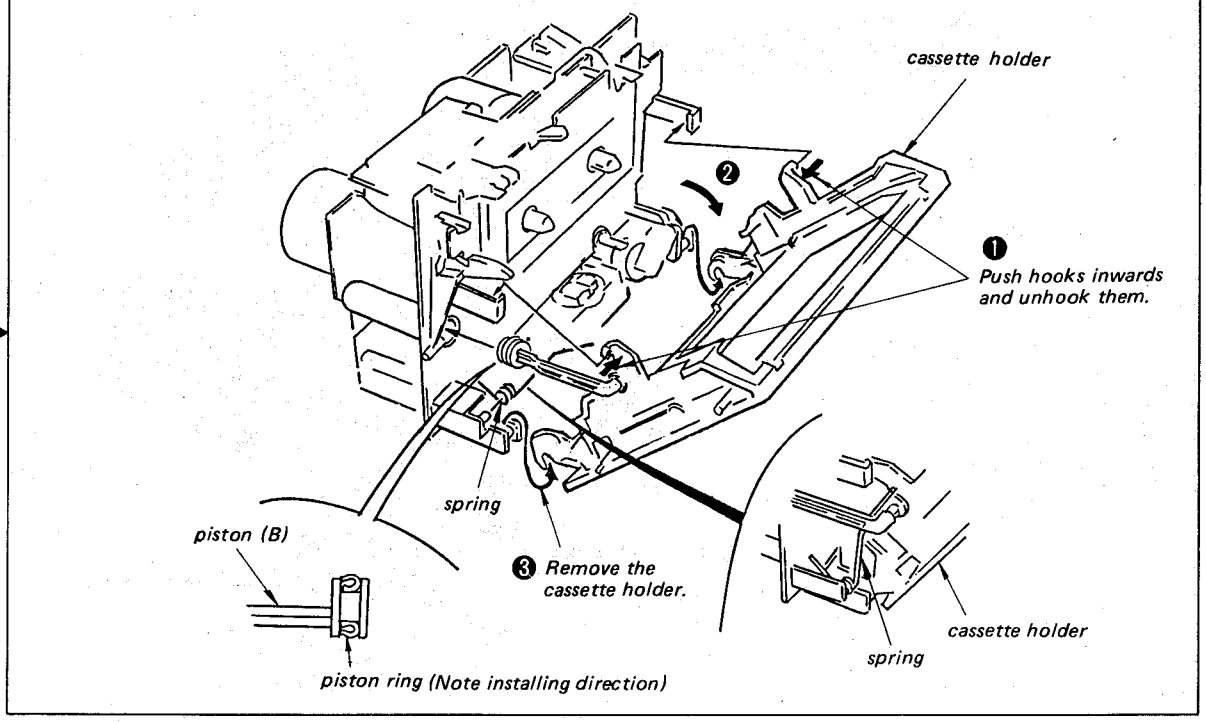


CAPSTAN MOTOR AND CAPSTAN BELT

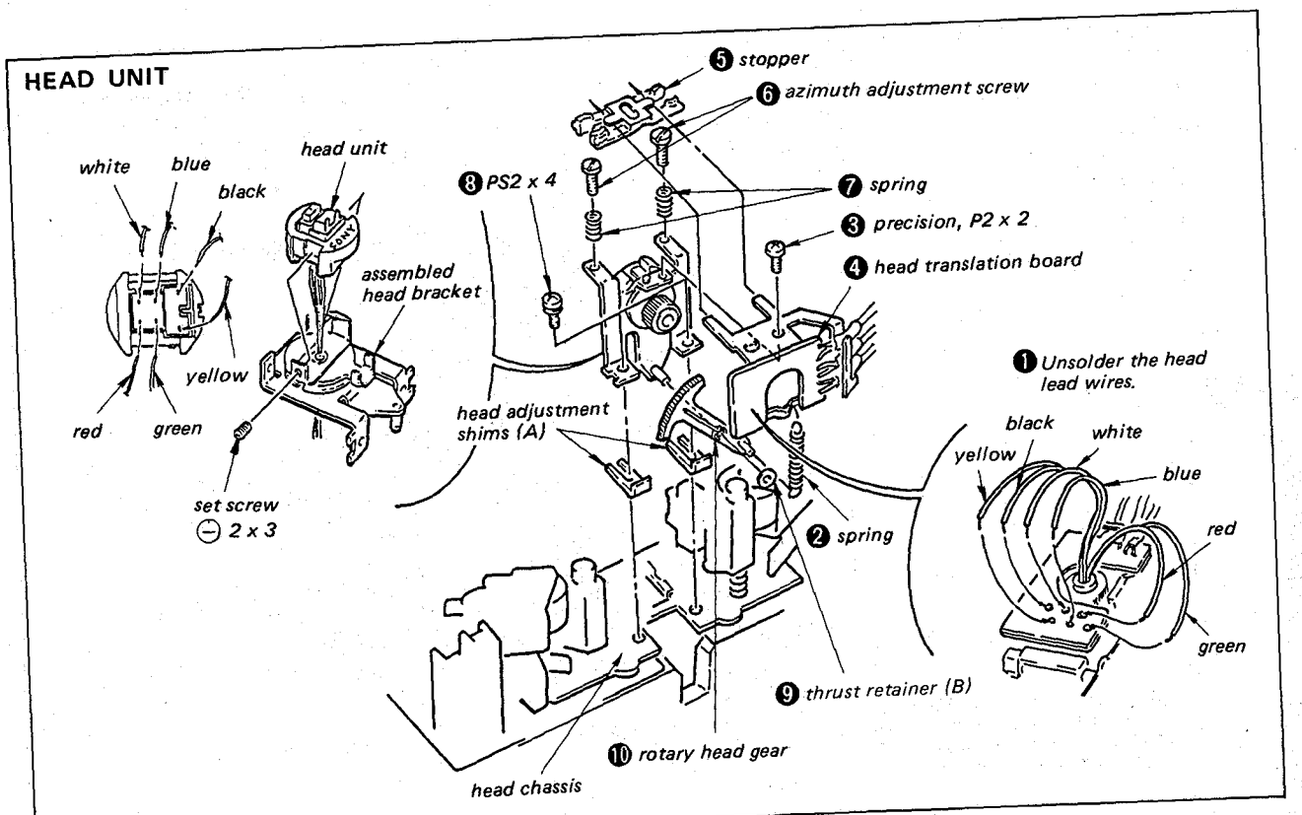


When reassembling, set the motor section after hooking the belt to the stud as shown in the figure, and then hook belt to the pulley.

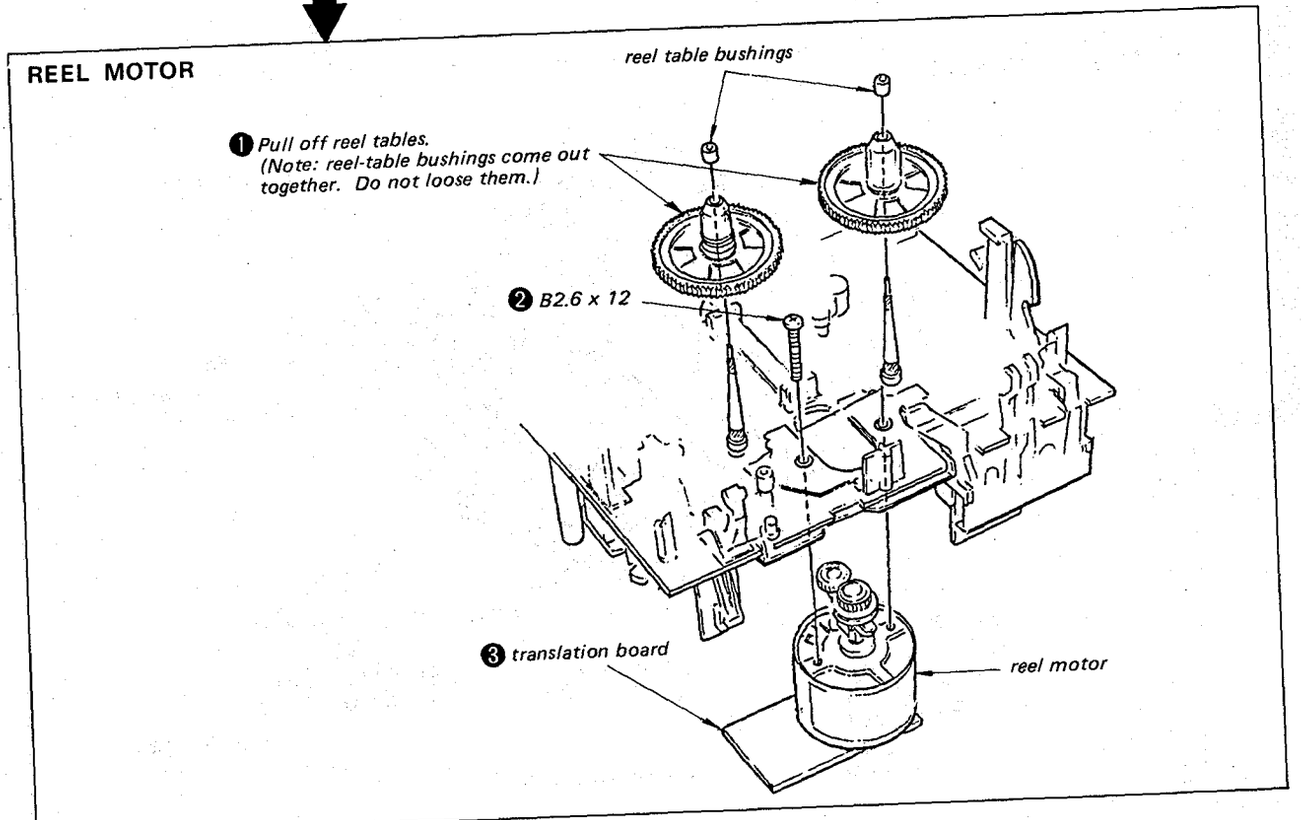
CASSETTE HOLDER



HEAD UNIT



REEL MOTOR


reel table bushings
1 Pull off reel tables.
(Note: reel-table bushings come out together. Do not loose them.)
2 B2.6 x 12
3 translation board
reel motor

SECTION 3
ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab:
   record/playback/erase head rubber belts
   capstan
   pinch roller
2. Demagnetize the head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

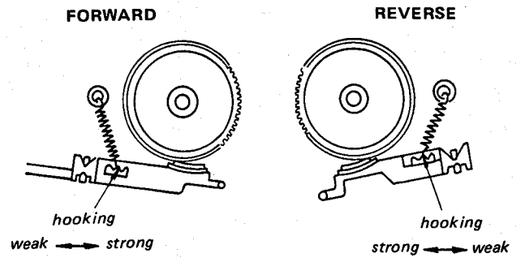
Torque Measurement

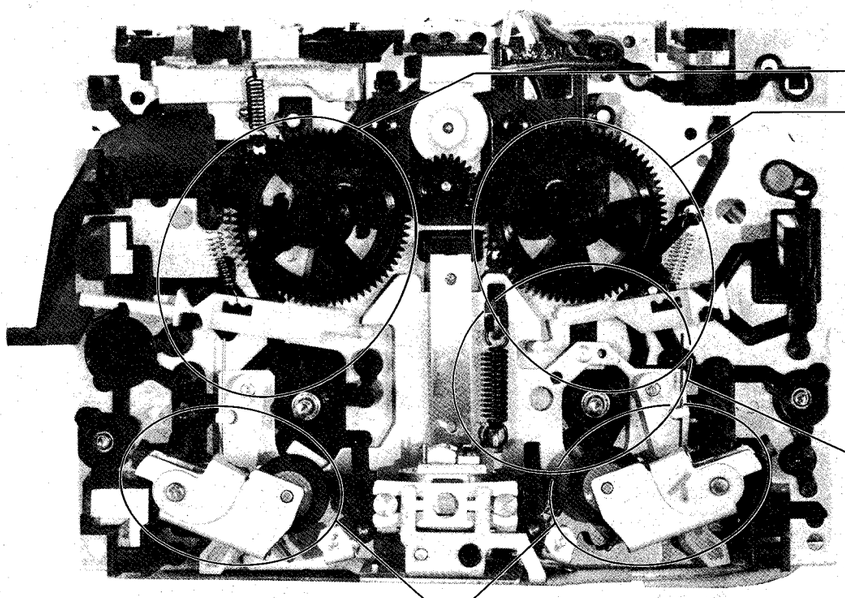
Torque	Torque meter	Meter reading
Forward	CQ-102C	28 – 60 g·cm (0.39 – 0.82 oz·inch)
Reverse	CQ-102RB	
Fast Forward and Rewind	CQ-201B	90 – 150 g·cm (1.26 – 2.07 oz·inch)
Forward Back Tension	CQ-102C	2.5 – 5.5 g·cm (0.03 – 0.07 oz·inch)
Reverse Back Tension	CQ-102RB	2.5 – 7 g·cm (0.03 – 0.09 oz·inch)

BACK TENSION ADJUSTMENT
– Forward and Reverse Playback Modes –

Forward: Torque Meter CQ-102C, Torque 2.5 – 5.5 g·cm (0.03 – 0.07 oz·inch)

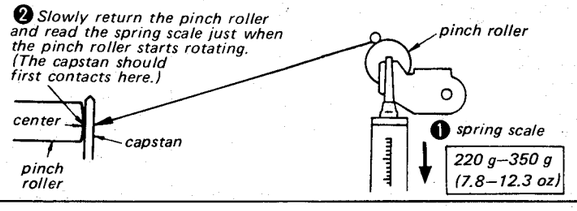
Reverse : Torque Meter CQ-102RB, Torque 2.5 – 7 g·cm (0.03 – 0.09 oz·inch)





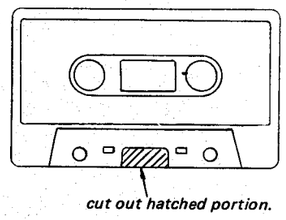
Pinch Roller Pressure Measurement

– Playback Mode –

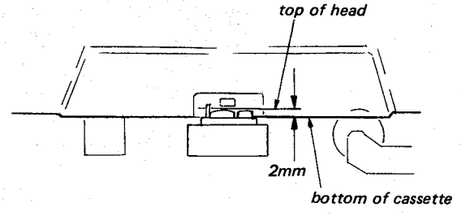

❷ Slowly return the pinch roller and read the spring scale just when the pinch roller starts rotating. (The capstan should first contacts here.)
center
capstan
pinch roller
pinch roller
❶ spring scale
220 g–350 g (7.8–12.3 oz)

Head Position Adjustment in PAUSE mode

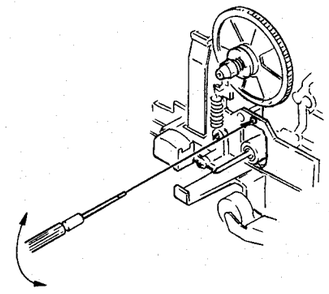
1. Prepare an adjustment cassette as shown below.

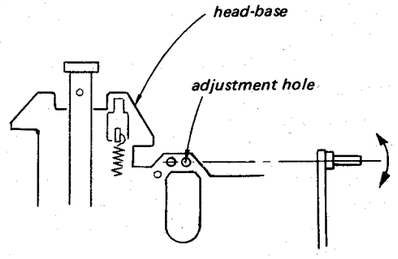


2. In PAUSE mode, comfirm that the distance between top of head and bottom of cassette is 2 mm ±0.1 mm (3/32 inch).



If it is not, insert a small screwdriver to the adjustment hole and adjust the head position by bending a head-base so that the distance between top of head and bottom of cassette is 2 mm±0.1 mm.





TC-FX420R/FX422R

Precaution on Replacing

As the head center adjustment and the tape path adjustment are affected each other, do not perform them at the same time.

Note: When the record/playback/erase head is replaced, be sure to perform the preliminary adjustment first.

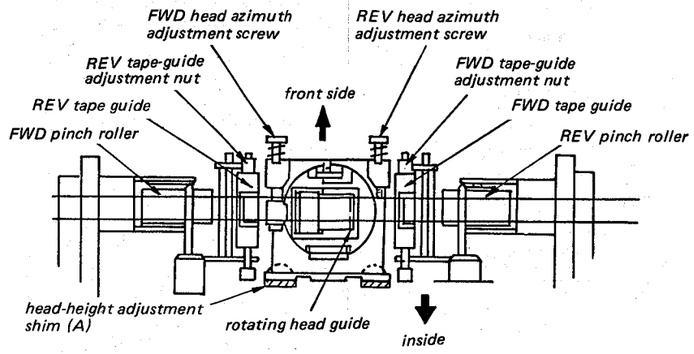
Head Center Adjustment

1. Insert a mirror tape cassette, CQ-009C or CQ-012C.
2. Place the unit in forward playback mode.
3. When the lower part of the tape is warped, loosen the head center adjustment screw. (Loosen the screw within one turn.)
4. Place the unit in reverse-playback mode.
5. When the upper part of the tape is warped, secure the adjustment screw. (Secure the screw within one turn.)
6. Repeat steps 2 to 5 several times until there is no warp both in forward and reverse mode.
7. If the warp is not disappeared, repeat steps 2 to 6 after adding or removing the head height adjustment shim (A).
8. After adjustment, lock the head center adjustment screw with locking compound.

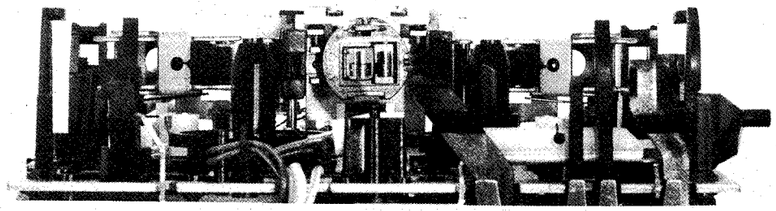
Tape Path Adjustment

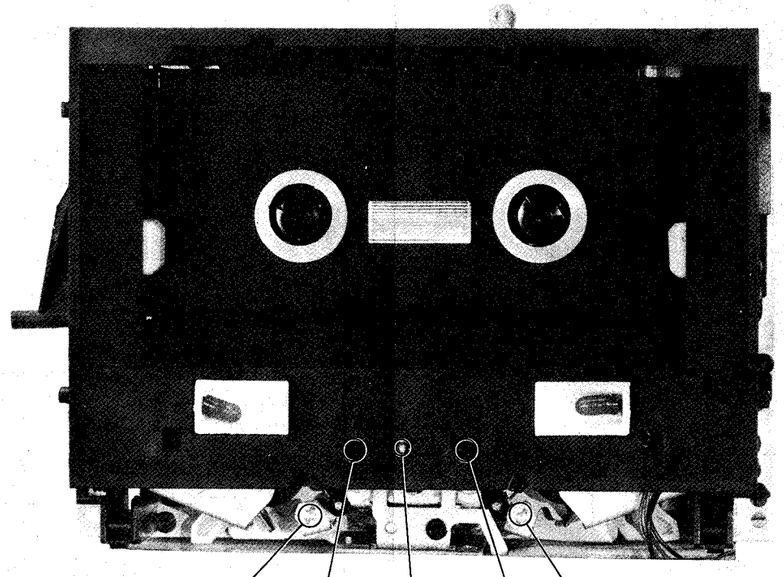
1. Clean the pinch roller and the record/playback/erase head with soft cloth moistened with alcohol.
2. Mode: playback
   Refer to step 1 of the Record/playback Head Azimuth Adjustment on page 16 for the setup.
3. Adjust the FWD azimuth adjustment screw in the forward-playback mode and the REV azimuth adjustment screw in the reverse-playback mode so that the oscilloscope reads the maximum output and lissajous figure is in 30 angle reading on the oscilloscope across the LINE OUT.
4. Adjust the FWD tape-guide nut in the foward-playback mode and the REV tape-guide nut in the reverse-playback mode for an in-phase lissajous pattern.
   The turning amount of the nuts should be within 3/4 turns.
5. Repeat steps 3 and 4 serveral times until no improvement is obtained.
6. Play a mirror tape cassette in the forward-playback mode.
7. Confirm there is no tape curl at the tape guide.

Note: After these adjustments, be sure to perform the Record/playback Head Azimuth Adjustment on page 16.



VIEWED FROM TOP



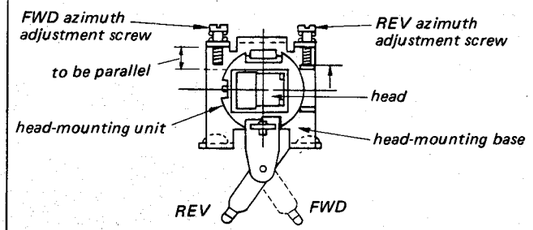

FWD tape guide adjustment nut
REV head azimuth adjustment screw
head center adjustment screw (forward-playback mode only)
FWD head azimuth adjustment screw
REV tape guide adjustment nut

HEAD UNIT ADJUSTMENT WHEN REPLACED

Perform the following preliminary adjustments before proceeding to the Head Center and Tape Path Adjustments.

Preliminary Adjustment

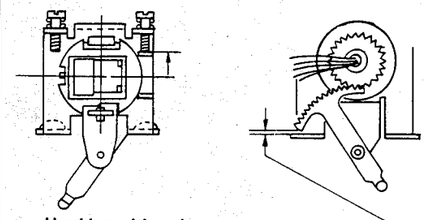
1. Install head-mounting unit on the head-mounting base by threading head lead wires through the round hole in the head-mounting base. Also refer to page 10.
2. By adjusting both head-azimuth adjustment screws in both forward-playback and reverse-playback mode head positions, align the head-compartment edge line in parallel with the edge line of the head-mounting unit at the azimuth adjustment screws. (visual adjustment)



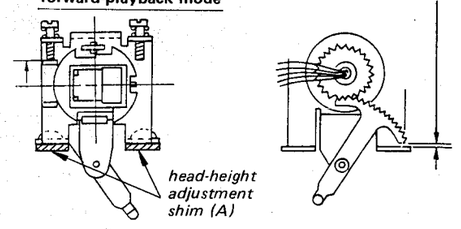
Be sure to orient the rotary-head gear as shown below.

Head is positioned at reverse-playback mode

Install rotary head gear.



Head is positioned at forward-playback mode



3. Reassemble the head assembly, head translation board, head-height adjustment shims (A), etc, in the reverse manner of disassembly on page 10.
4. Perform the Head-Center and Tape-Path Adjustments on pages 13 and 14.
5. Perform the Head-Azimuth Adjustment on page 16.

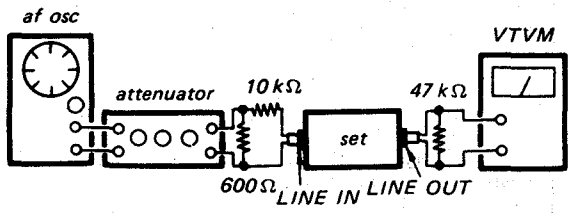
3-2. ELECTRICAL ADJUSTMENTS

Note: The adjustment should be performed in the order given in this service manual.
The adjustments should be performed for both L-CH and R-CH.

- Switches and controls should be set as follows unless otherwise specified.
  DOLBY NR switch: OFF
  TIMER switch: OFF

- Standard Record:
  Deliver the standard input signal level to the input jack and set the REC LEVEL control to obtain the standard output signal level.

– Record Mode –



Standard Input Level

	LINE IN
source impedance	10 kΩ
input level	0.25 V (–10 dB)

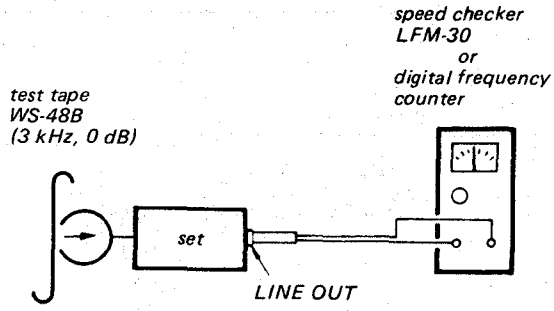
Standard Output Level

	LINE OUT
load impedance	47 kΩ
output level	0.44 V (–5 dB)

Tape Speed Adjustment

Procedure:

Mode: forward-playback

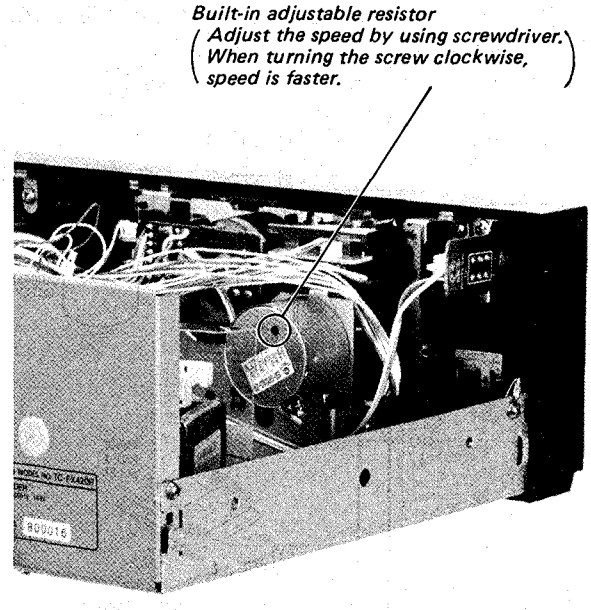


Specification:

Speed checker	Digital frequency counter
–1 ~ +1 %	2,970 Hz to 3,030 Hz

Frequency difference between the beginning and the top of the tape should be within 0.8% (25Hz).

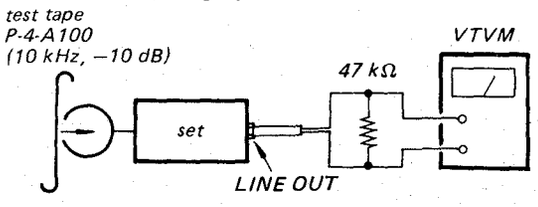
Adjustment Location: Motor (M602)



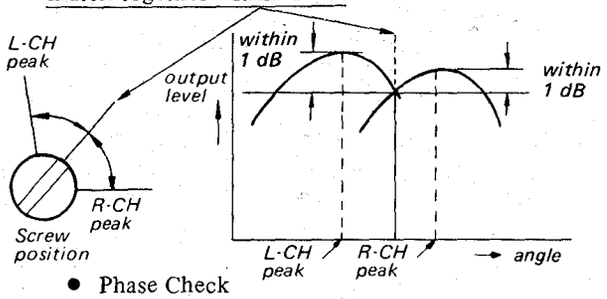
Record/playback Head Azimuth Adjustment

Procedure:

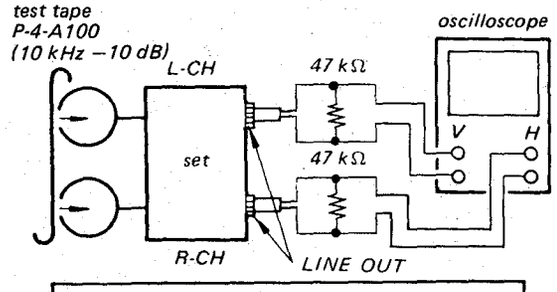
1. Mode: forward-playback

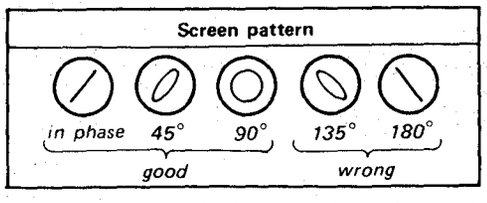


2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screws until both of output levels match together within 1 dB.



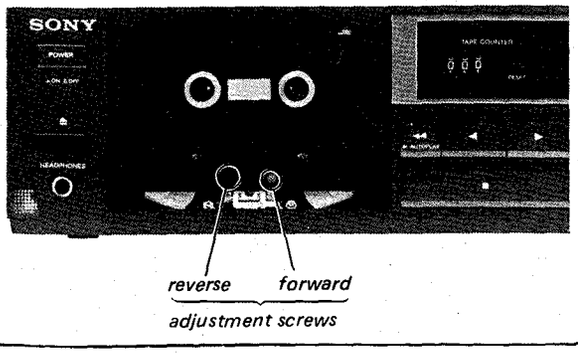
- Phase Check





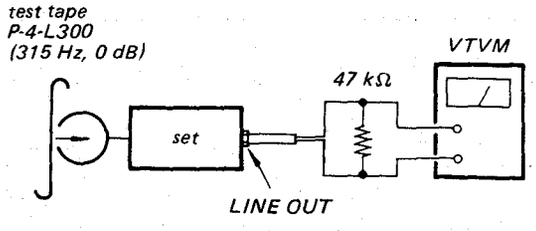
3. Set in the reverse-playback mode and repeat the steps 1 – 2.
4. After the adjustment, lock the screws with locking compound.

Adjustment Location:



Playback Level Adjustment

Procedure:



Adjust the RV104 (L-CH) and RV204 (R-CH) so that the specification is met.

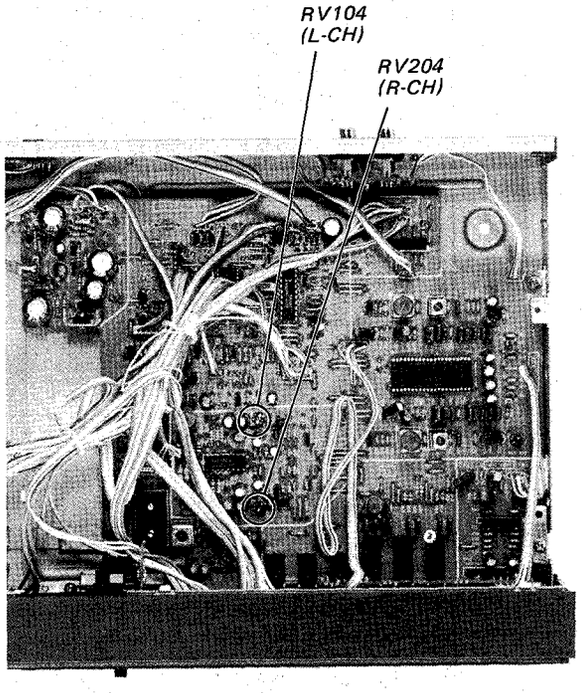
Specification:

LINE OUT level: 0.41 to 0.46 V
(−5.5 to −4.5 dB)

Level difference between channels:
less than 0.5 dB

Check that the LINE OUT level does not change in playback mode while changing the mode from playback to stop several times.

Adjustment Location: audio board



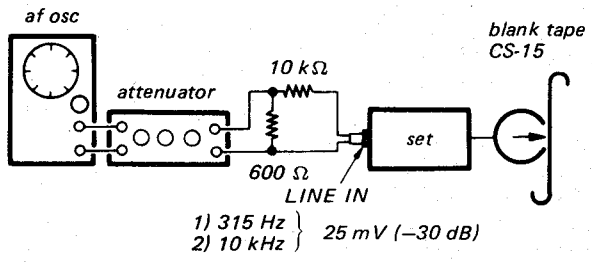
Record Bias Adjustment

Setting:

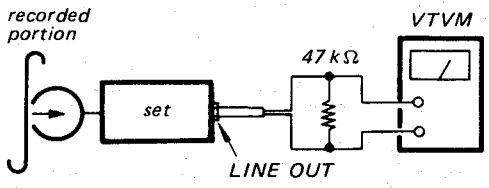
REC LEVEL control: standard record
(See page 15.)

Procedure:

1. Mode: record

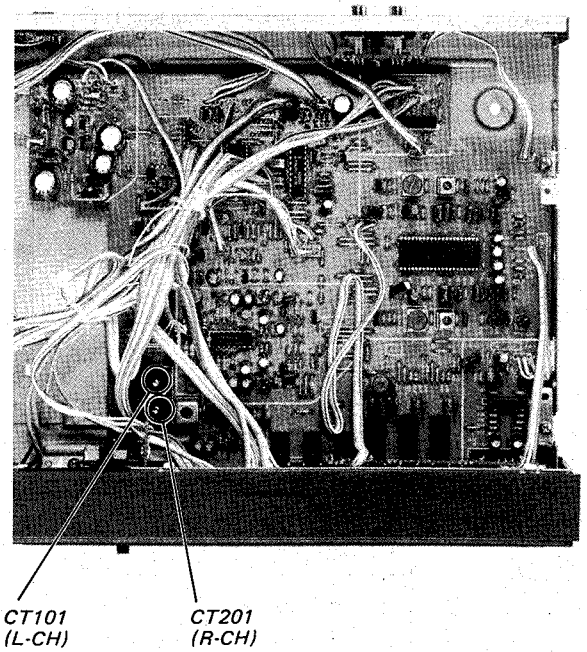


2. Mode: playback



Confirm that the 10 kHz playback output is 0 dB relative to the 315 Hz output. If necessary, adjust CT101 (L-CH), CT201 (R-CH) and repeat the steps given above.

Adjustment Location: audio board



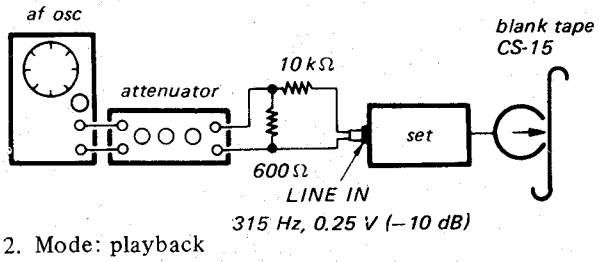
Record Level Adjustment

Setting:

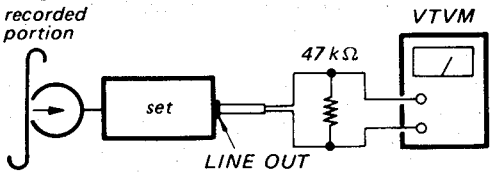
REC LEVEL control: standard record
(See page 15.)

Procedure:

1. Mode: record



2. Mode: playback

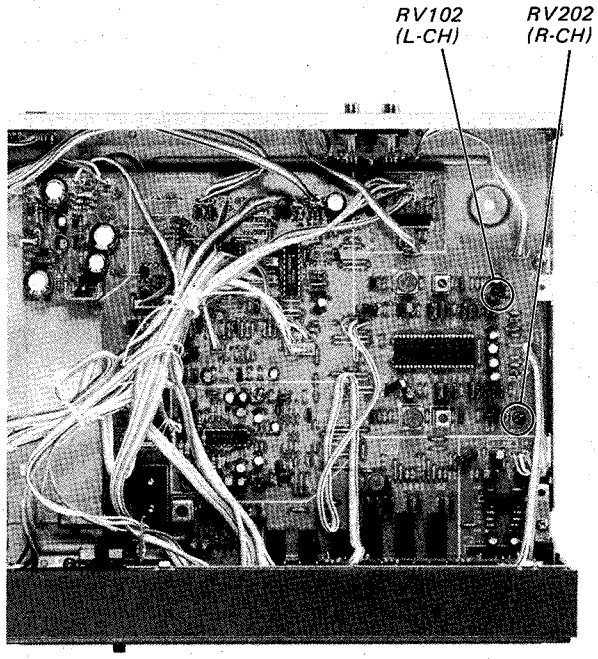


3. Play back the signal recorded in step 1. Confirm that the signal level is within the specification below. If necessary, adjust RV102 (L-CH), RV202 (R-CH) and repeat the steps 1 – 3.

Specification:

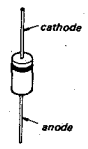
LINE OUT level: 0.41–0.46 V
(–5.5 to –4.5 dB)

Adjustment Location: audio board

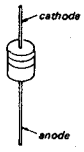


- Semiconductor Lead Layouts

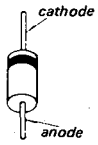
11E2



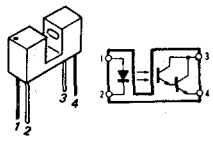
1SS202-1



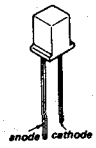
HZ6A3L
HZ6B3L



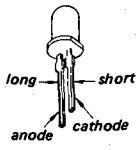
SPI201-20



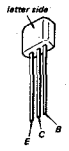
GL-9HY4
GL-9PG4
GL-9PR4



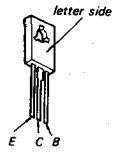
GL-5EG22



2SA1175
2SD1020



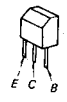
2SB731
2SD809-K



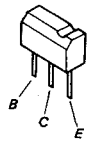
2SB808
2SC2603-F
2SD1012
DTA114ES
DTC114ES

2SC945-P

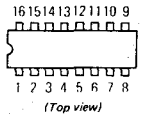
2SD774



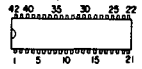
DTA144WS



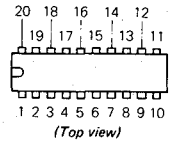
CX10032A
IR2E02



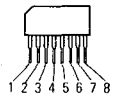
CX20187



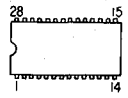
M50761-417P



M5218L



TC9310N-002



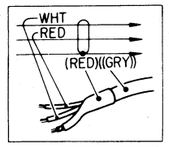
SECTION 4
DIAGRAMS

4-1. MOUNTING DIAGRAM

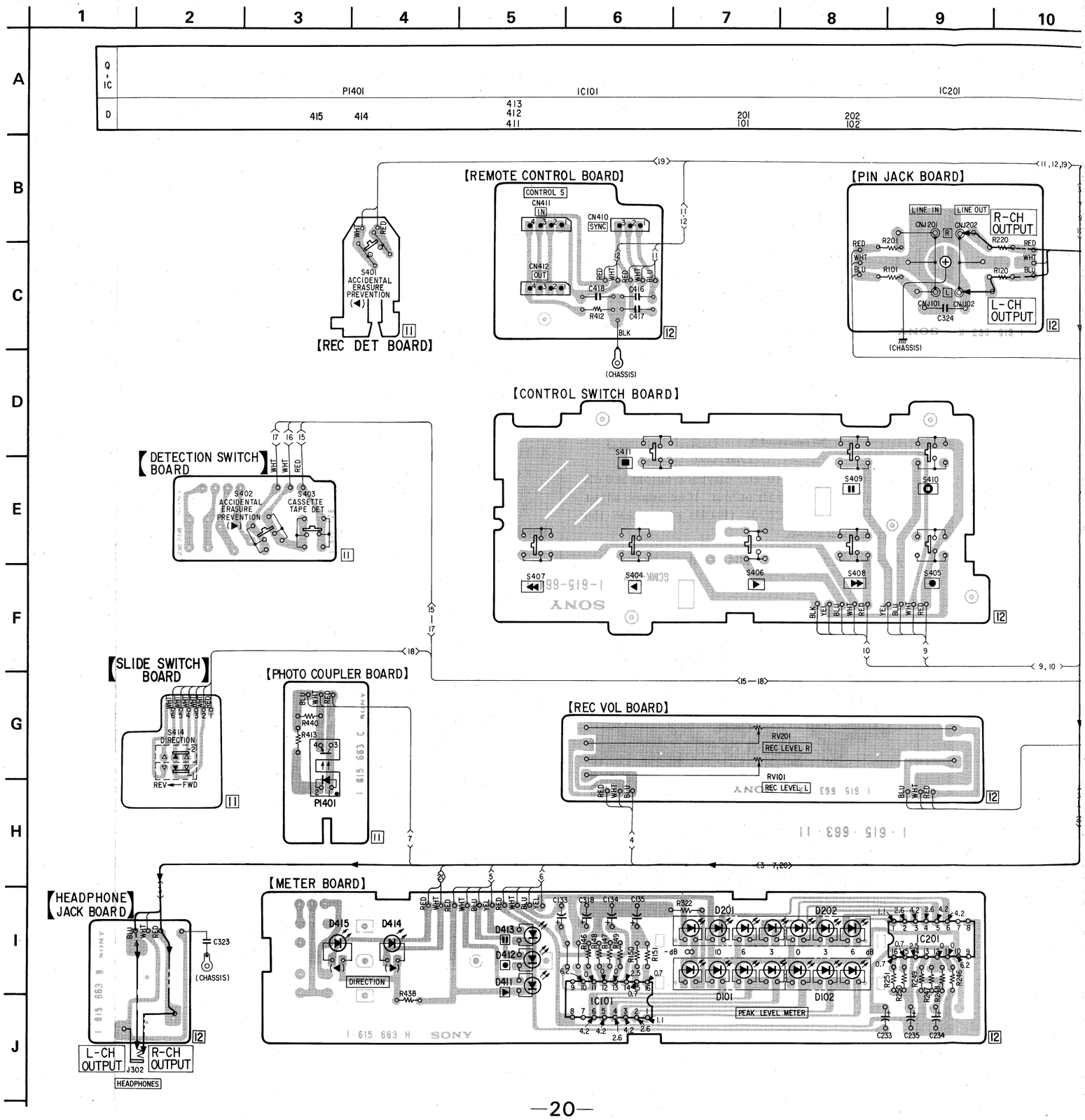
- See page 18 for Semiconductor Lead Layouts.

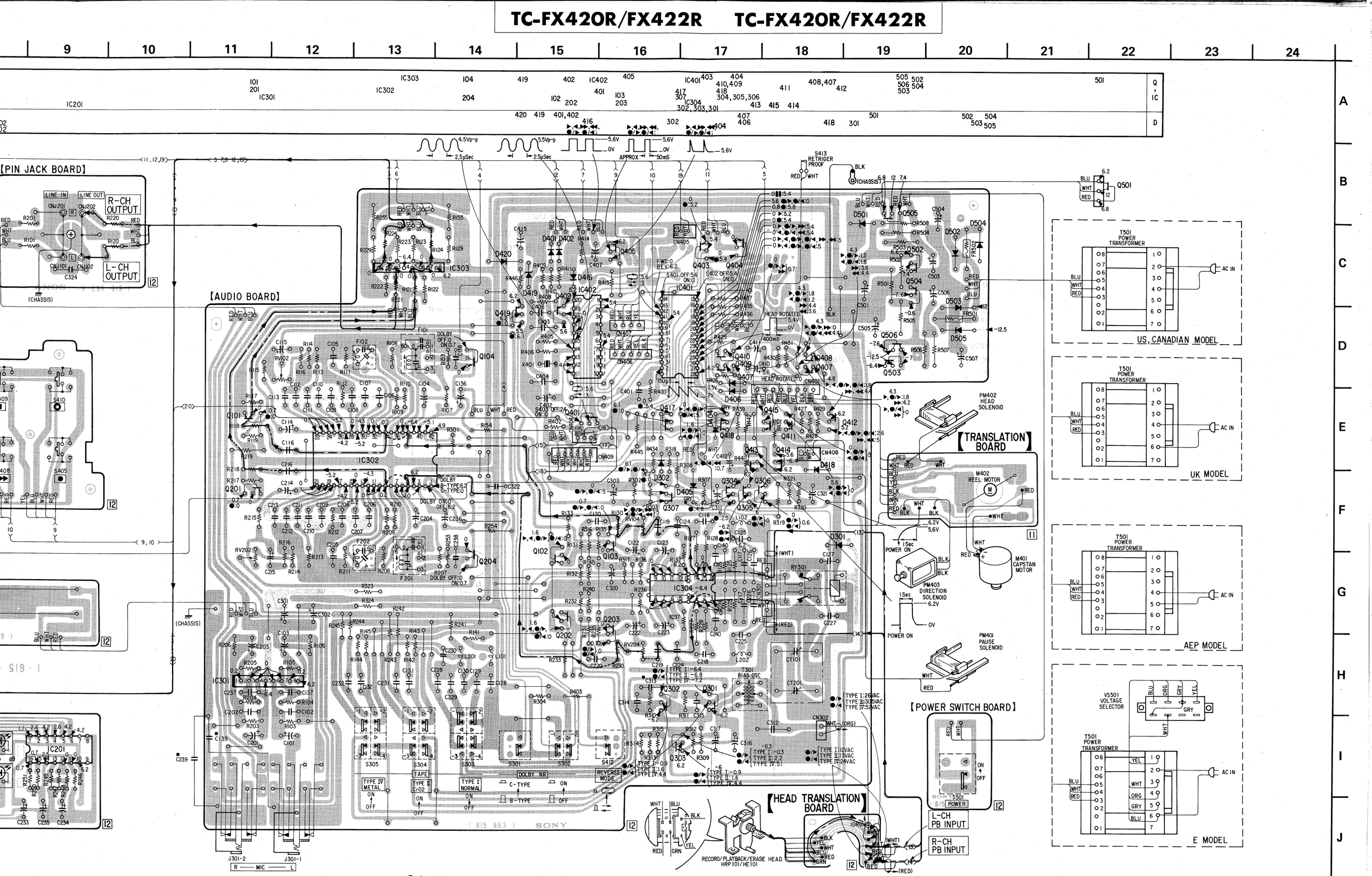
Note:

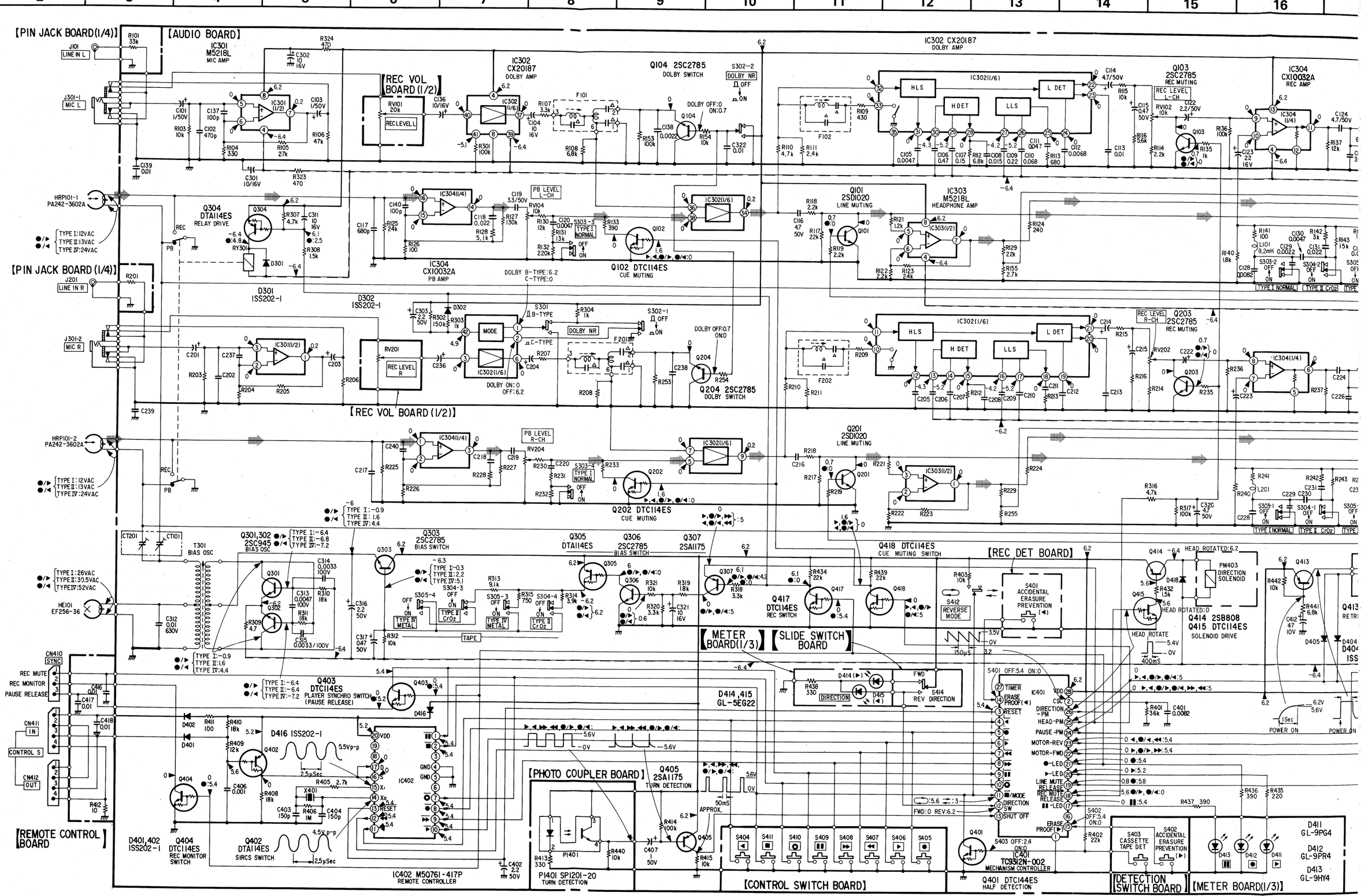
- Color code of sleeving over the end of the jacket.

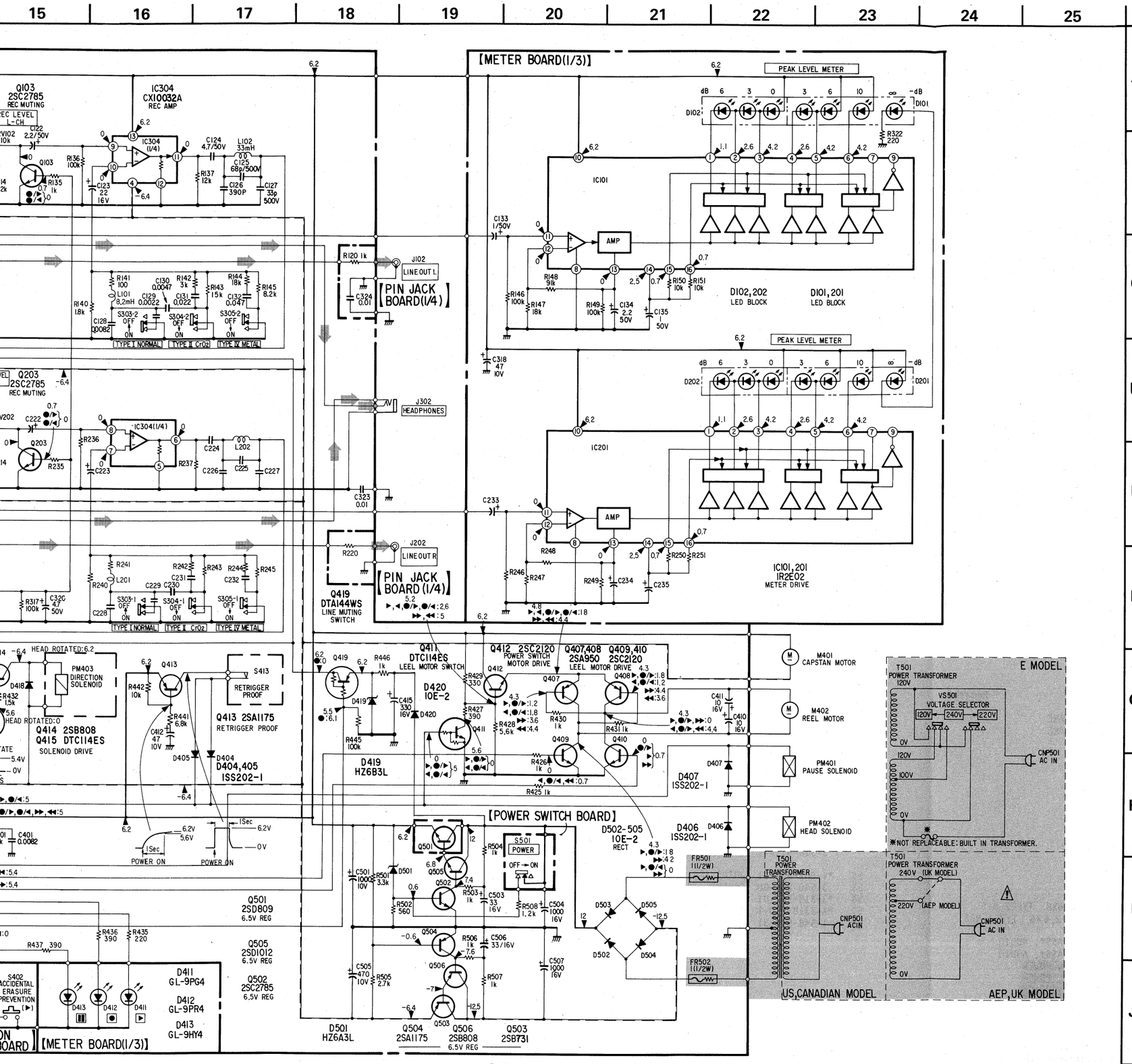


- ○— : parts extracted from the component side.
- —● : parts extracted from the conductor side.
- ■ : part mounted on the conductor side.
- ——→—— : signal path
- ——→—— : L-CH signal path
- ——→—— : R-CH signal path
- ▒▒ : B + pattern




【PIN JACK BOARD】
LINE IN
LINE OUT
R-CH OUTPUT
L-CH OUTPUT
CNJ201
CNJ202
CNJ101
CNJ102
(CHASSIS)
【AUDIO BOARD】
IC303
IC302
IC301
IC304
IC401
IC402
IC201
Q501
T501 POWER TRANSFORMER
US, CANADIAN MODEL
UK MODEL
AEP MODEL
E MODEL
AC IN
【TRANSLATION BOARD】
PM402 HEAD SOLENOID
M402 REEL MOTOR
M401 CAPSTAN MOTOR
PM403 DIRECTION SOLENOID 6.2V
PM401 PAUSE SOLENOID
POWER ON
POWER OFF
【POWER SWITCH BOARD】
S501 POWER
VS501 VOLTAGE SELECTOR
【HEAD TRANSLATION BOARD】
RECORD/PLAYBACK/ERASE HEAD HRP101/HE101
L-CH PB INPUT
R-CH PB INPUT
J301-2
J301-1
R — MIC — L
S305
S304
S303
S301
S302
S412
TYPE IV METAL
TYPE II CrO2
TYPE I NORMAL
TAPE
DOLBY NR
C-TYPE
B-TYPE
REVERSE MODE
S401 OFF:5.4 ON:0
S402 OFF:5.4 ON:0
S403 OFF:24 ON:0
S405
S410
S413 RETRIGER PROOF
T301 BIAS OSC
SONY


【PIN JACK BOARD(1/4)】
【AUDIO BOARD】
【REC VOL BOARD (1/2)】
【PIN JACK BOARD (1/4)】
【REC VOL BOARD (1/2)】
【REMOTE CONTROL BOARD】
【PHOTO COUPLER BOARD】
【METER BOARD(1/3)】
【SLIDE SWITCH BOARD】
【REC DET BOARD】
【CONTROL SWITCH BOARD】
【DETECTION SWITCH BOARD】
【METER BOARD(1/3)】
IC301 M5218L MIC AMP
IC302 CX20187 DOLBY AMP
IC302 CX20187 DOLBY AMP
IC304 CX10032A PB AMP
IC304 CX10032A REC AMP
IC303 M5218L HEADPHONE AMP
IC402 M50761-417P REMOTE CONTROLLER
IC401 TC9312N-002 MECHANISM CONTROLLER
Q104 2SC2785 DOLBY SWITCH
Q102 DTC114ES CUE MUTING
Q204 2SC2785 DOLBY SWITCH
Q202 DTC114ES CUE MUTING
Q103 2SC2785 REC MUTING
Q203 2SC2785 REC MUTING
Q101 2SD1020 LINE MUTING
Q201 2SD1020 LINE MUTING
Q304 DTA114ES RELAY DRIVE
Q404 DTC114ES REC MONITOR SWITCH
Q402 DTA114ES SIRCS SWITCH
Q303 2SC2785 BIAS SWITCH
Q305 DTA114ES
Q306 2SC2785 BIAS SWITCH
Q307 2SA1175
Q301,302 2SC945 BIAS OSC
Q403 DTC114ES PLAYER SYNCHRO SWITCH (PAUSE RELEASE)
Q405 2SA1175 TURN DETECTION
Q417 DTC114ES REC SWITCH
Q418 DTC114ES CUE MUTING SWITCH
Q414 2SB808
Q415 DTC114ES SOLENOID DRIVE
Q401 DTC144ES HALF DETECTION
D301 ISS202-1
D302 ISS202-1
D416 ISS202-1
D401,402 ISS202-1
D414,415 GL-5EG22
D411 GL-9PG4
D412 GL-9PR4
D413 GL-9HY4
P1401 SP1201-20 TURN DETECTION
PM403 DIRECTION SOLENOID
J101 LINE IN L
J301-1 MIC L
J201 LINE IN R
J301-2 MIC R
HRP101-1 PA242-3602A
HRP101-2 PA242-3602A
HE101 EF256-36
CN410 SYNC
CN411 IN
CN412 OUT
REC LEVEL L
REC LEVEL R
REC LEVEL L-CH
REC LEVEL R-CH
DOLBY NR
DOLBY OFF:0 ON:0.7
DOLBY B-TYPE:6.2 C-TYPE:0
DOLBY ON:0 OFF:6.2
PB LEVEL L-CH
PB LEVEL R-CH
TAPE
REC
PB
REVERSE MODE
S401 ACCIDENTAL ERASURE PREVENTION
S402 ACCIDENTAL ERASURE PREVENTION
S403 CASSETTE TAPE DET
DIRECTION
FWD
REV DIRECTION
HEAD ROTATE
HEAD ROTATED:6.2
HEAD ROTATED:0
SOLENOID DRIVE
POWER ON
TYPE I:12VAC
TYPE II:13VAC
TYPE IV:24VAC
TYPE I:26VAC
TYPE II:30.5VAC
TYPE IV:52VAC
REC MUTE
REC MONITOR
PAUSE RELEASE
CONTROL S
HLS
H DET
LLS
L DET
F101
F102
F201
F202
RY301
T301 BIAS OSC
CT201
CT101
X401
REC
PB



Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- ▨ : signal path.
- Components for right channel have same values as for left channel. Reference numbers are coded from 200.
- △ : internal component.
- ▭ : fusible resistor.
- ▬▬ : B+ bus.
- ▬ ▬ : B− bus.
- ▭ : adjustment for repair.
- AC voltage readings in the bias oscillator with a VTVM.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under no-signal conditions with a VOM (50 kΩ/V).
  ▶ : FWD ◀◀ : FR ◀ : REV
  ▶▶ : FF ■ : STOP ● : REC
- Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken to ground by using oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Switch

Ref. No.	Switch	Position
S301	DOLBY NR B/C	B
S302	DOLBY NR ON/OFF	OFF
S303	TAPE I	ON
S304	TAPE II	OFF
S305	TAPE IV	OFF
S401	ACCIDENTAL ERASURE PREVENTION (◀)	OFF
S402	ACCIDENTAL ERASURE PREVENTION (▶)	OFF
S403	CASSETTE TAPE DET	OFF
S404	◀ (REV)	OFF
S405	● (REC)	OFF
S406	▶ (FWD)	OFF
S407	◀◀ (FF)	OFF
S408	▶▶ (REW)	OFF
S409	❚❚ (PAUSE)	OFF
S410	○ (REC MUTE)	OFF
S411	■ (STOP)	OFF
S412	REVERSE MODE	⇄
S413	RETRIGGER PROOF	OFF
S414	DIRECTION	FWD
S501	POWER	OFF
VS501	VOLTAGE SELECTOR	240V

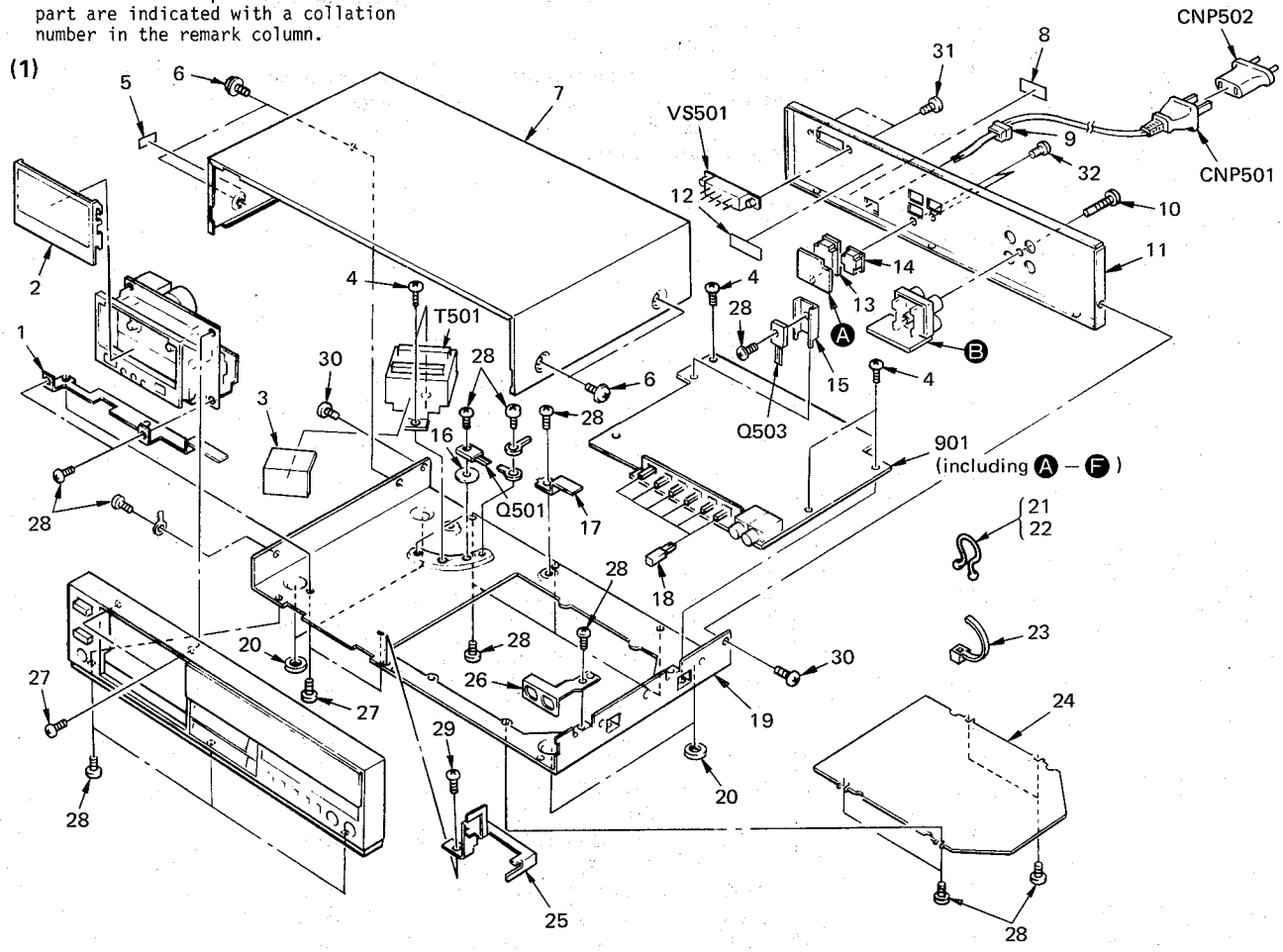
Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

SECTION 5
EXPLODED VIEWS AND PARTS LIST

NOTE:
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

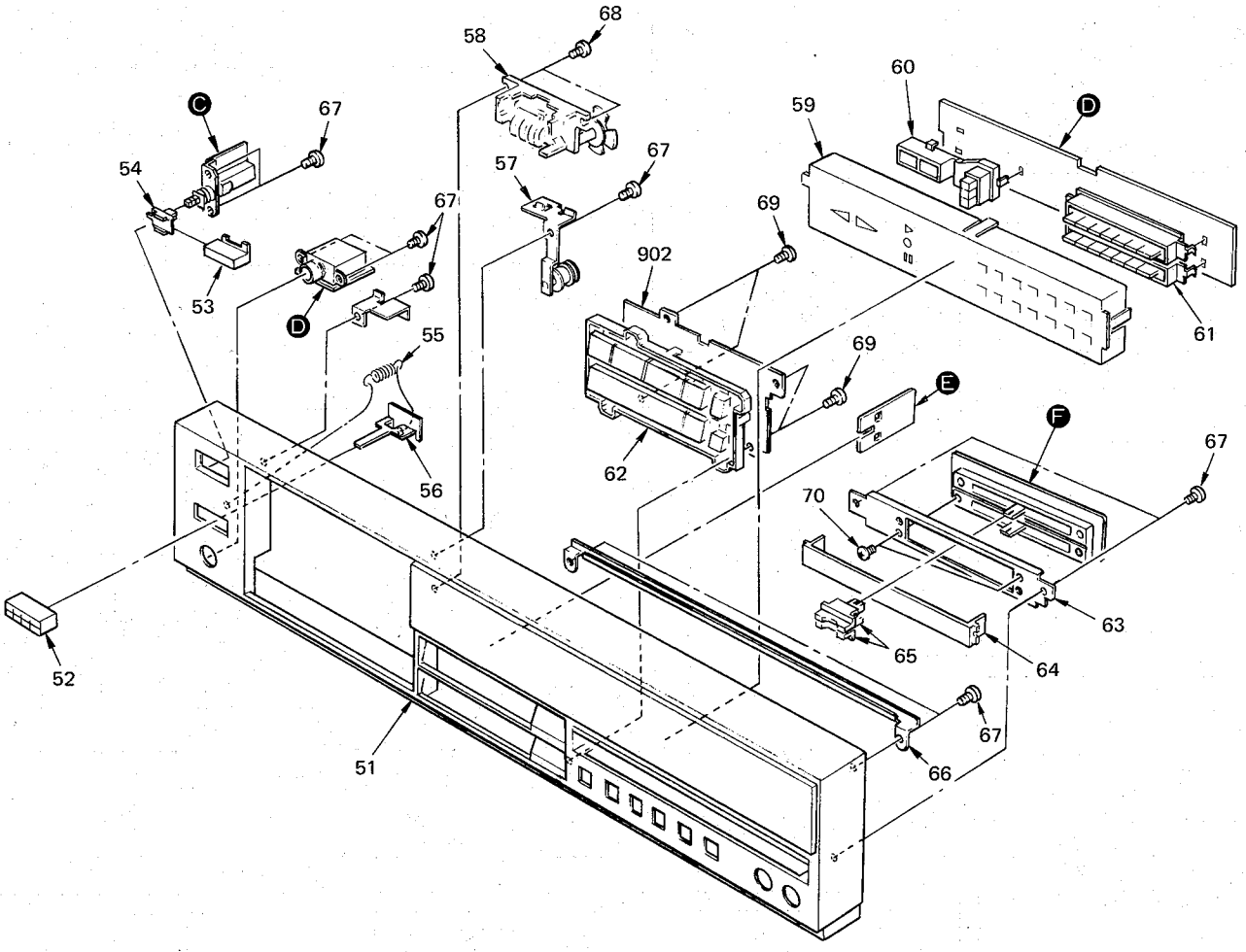
The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.



No.	Part No.	Description	Remarks
1	*3-318-975-01	BRACKET (A), MD	
2	X-3318-928-1	(FX420R:SILVER)...HOLDER ASSY, CASSETTE	
	X-3318-929-1	(FX420R:BLACK)....HOLDER ASSY, CASSETTE	
	X-3318-935-1	(FX422R).....HOLDER ASSY, CASSETTE	
3	9-911-863-XX	SHEET, INSULATING	
4	3-703-249-01	SCREW, S TIGHT, +PTTWH 3X6	
5	3-703-079-21	(UK)....LAVEL, CAUTION	
6	4-889-321-01	(SILVER)....SCREW	
	4-889-321-11	(BLACK)....SCREW	
7	4-904-474-21	(SILVER)...CASE	
	4-904-474-31	(BLACK)....CASE	
8	3-318-992-01	(AEP)...LABEL, MODEL NUMBER (AE1)	
	3-318-993-01	(UK)....LABEL, MODEL NUMBER (UK)	
	*4-302-759-00	LABEL, SERIAL NUMBER	
9	3-703-244-00	(AEP,UK,E).....BUSHING (2104), CORD	
	3-703-571-00	(US,Canadian)...BUSHING (S)(4516), CORD	
10	3-703-473-00	SCREW, TERMINAL	
11	3-307-530-92	(FX422R).....PLATE, JACK	
	3-318-996-11	(FX420R:E)...PLATE, JACK	
	*3-318-996-01	(FX420R:US,Canadian,AEP,UK)...PLATE, JACK	
12	3-701-030-00	LABEL, SERIAL NUMBER	
13	*3-322-818-01	(FX420R)...HOLDER, CONNECTOR	
14	*3-322-819-01	(FX420R)...HOLDER, CONNECTOR	
15	*3-312-615-11	HEAT SINK	
16	3-572-365-11	SHEET, INSULATING (A)	
17	*3-318-963-01	BRACKET, AUDIO PC BOARD	

No.	Part No.	Description	Remarks
18	4-855-804-11	(BLACK)....KNOB, SQUARE	
	4-855-804-51	(SILVER)...KNOB, SQUARE	
19	*3-318-948-23	CHASSIS	
20	3-576-731-00	FELT (H)	
21	3-315-159-01	PURSE LOCK (DIA. 14)	
22	3-701-417-00	PURSE LOCK (11 DIA.)	
23	*3-701-748-00	CLAMP	
24	*3-318-946-01	PLATE, BOTTOM	
25	*3-318-969-01	RETAINER, PC BOARD	
26	*3-318-973-01	PLATE, SHIELD	
27	7-685-751-09	SCREW +BVTT 3X6 (S)	
28	7-685-871-01	SCREW +BVTT 3X6 (S)	
29	7-682-546-04	SCREW +BVTT 3X5 (S)	
30	7-685-752-04	SCREW +BVTT 3X8 (S)	
31	7-685-134-19	(E)...SCREW +BTP 2.6X8 TYPE2 N-S	
32	7-685-133-19	(FX420R)...SCREW +P 2.6X6 TYPE2 N-S	
901	*A-2056-275-A	(FX420R)...PC BOARD ASSY, AUDIO	
	*A-2056-276-A	(FX422R)...PC BOARD ASSY, AUDIO	
⚠CNP501	1-534-817-XX	(AEP).....CORD, POWER	
⚠CNP501	1-551-472-00	(E).....CORD, POWER	
⚠CNP501	1-551-628-00	(US,Canadian)...CORD, POWER	
⚠CNP501	1-551-884-00	(UK).....CORD, POWER	
⚠CNP502	1-526-565-00	(E)....AC PLUG ADAPTOR	
Q501	8-729-180-92	TRANSISTOR 2SD809-K	
Q503	8-729-173-13	TRANSISTOR 2SB731	
T501	⚠1-448-154-21	(US,Canadian)...TRANSFORMER, POWER	
T501	⚠1-448-155-21	(AEP,UK)...TRANSFORMER, POWER	
T501	⚠1-448-156-21	(E).....TRANSFORMER, POWER	
VS501	⚠1-570-307-11	(E)...SWITCH, VOLTAGE CHANGE	

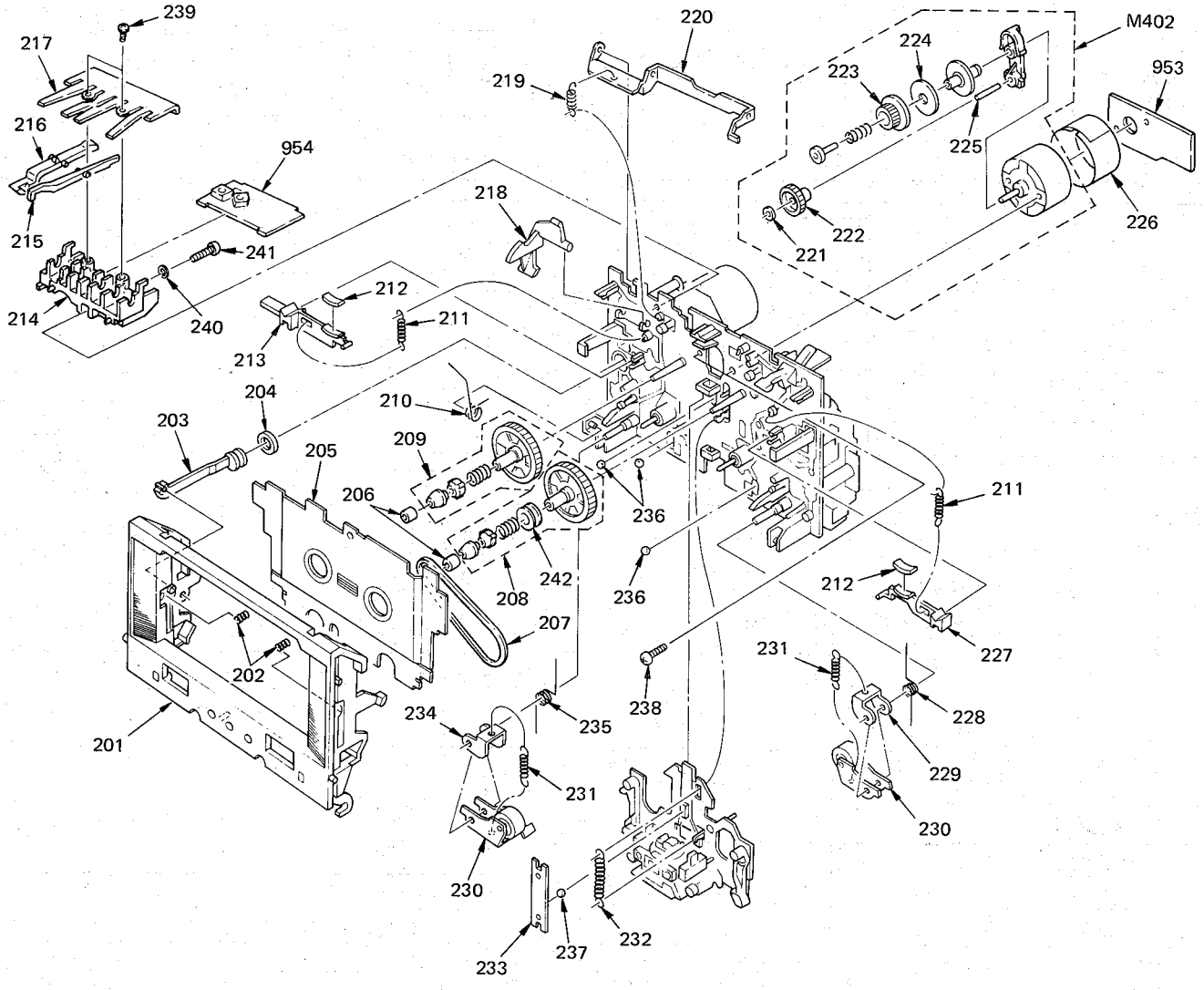
(2)



No.	Part No.	Description	Remarks
51	X-3318-932-1	(FX420R:SILVER)...FRONT PANEL ASSY	
	X-3318-933-1	(FX420R:BLACK:AEP,UK,E) ...FRONT PANEL ASSY	
	X-3318-934-1	(FX420R:BLACK:US,Canadian) ...FRONT PANEL ASSY	
	X-3318-936-1	(FX422R).....FRONT PANEL ASSY	
52	3-304-419-31	(BLACK)....BUTTON, EJECT	
	3-304-419-71	(SILVER)...BUTTON, EJECT	
53	3-318-911-61	(SILVER)...KNOB (POWER.L) T MOLD	
	3-318-911-71	(BLACK)....KNOB (POWER.L), T MOLD	
54	*4-902-831-01	JOINT (G), KNOB	
55	3-540-244-00	SPRING, TENSION	
56	*3-318-962-01	SLIDER, EJECT	
57	*X-3318-910-1	BRACKET (C) ASSY, MD	
58	1-548-574-31	COUNTER, TAPE (NORMAL TYPE)	

No.	Part No.	Description	Remarks
59	X-3318-927-1	HOLDER ASSY, METER	
60	3-318-989-01	SPACER (B), LED	
61	*3-318-941-01	SPACER, LED	
62	X-3318-930-1	(SILVER)...BUTTON BLOCK ASSY, CONTROL	
	X-3318-931-1	(BLACK)....BUTTON BLOCK ASSY, CONTROL	
63	*3-318-974-01	BRACKET, REC VOL	
64	3-318-964-02	(SILVER)...HOLDER, REC VOL	
	3-318-964-11	(BLACK)....HOLDER, REC VOL	
65	3-318-986-01	BUTTON, REC VOL	
66	*3-318-976-01	BRACKET, CASE	
67	7-685-546-01	SCREW +BTP 3X8 TYPE1	
68	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S	
69	7-685-547-01	SCREW +BTP 3X10 TYPE1	
70	7-621-775-10	SCREW +B 2.6X4	
902	*1-615-664-11	PC BOARD, CONTROL SWITCH	

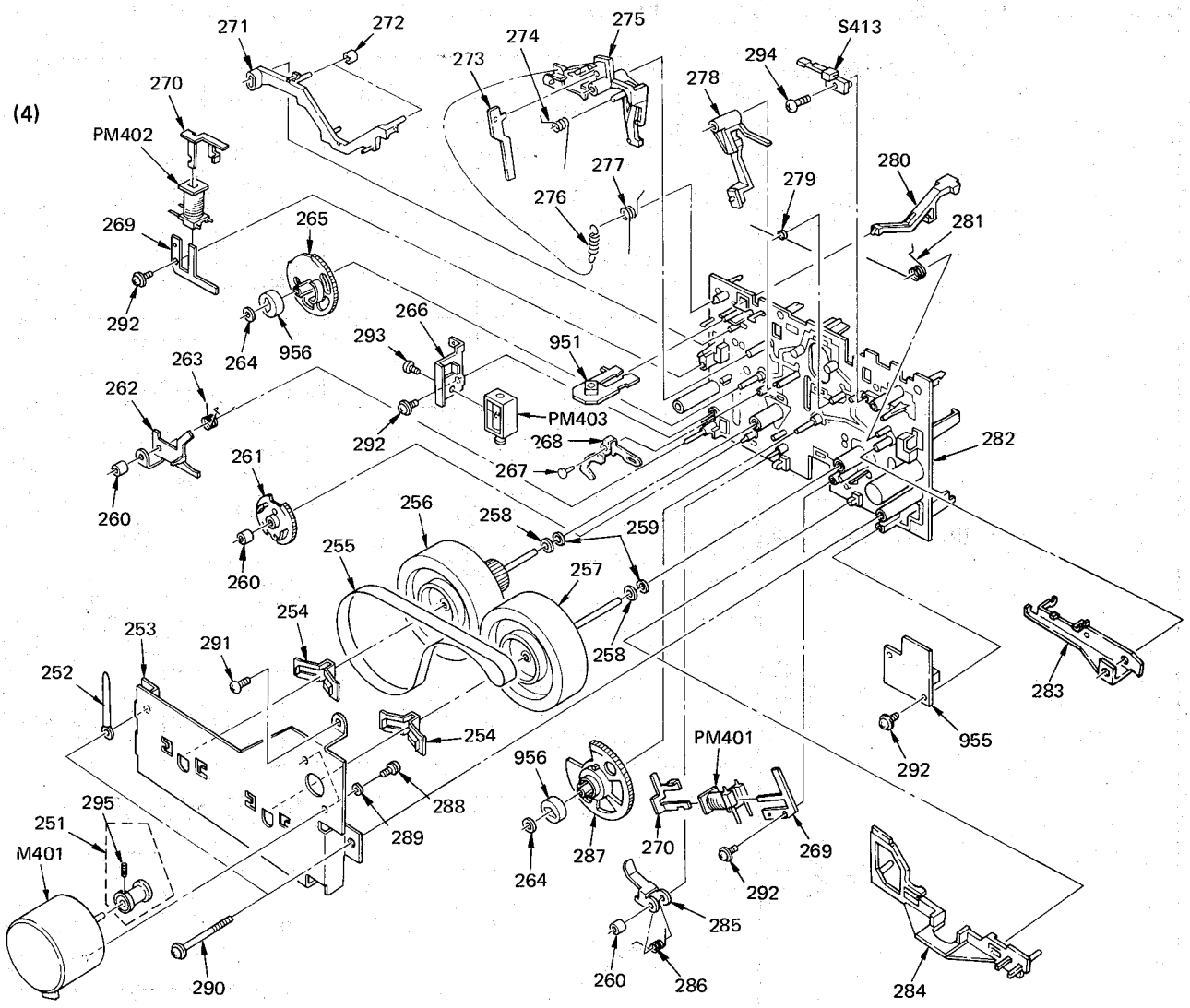
(3)



No.	Part No.	Description	Remarks
201	3-319-682-01	HOLDER, CASSEETTE	
202	3-610-808-00	SPRING (1)	
203	3-319-613-01	PISTON (B)	
204	3-312-441-00	RING, PISTON	
205	3-313-292-21	RETAINER, CASSETTE	
206	3-319-607-01	BUSHING, REEL TABLE	
207	3-577-029-00	BELT, SQUARE	
208	X-3319-626-1	TABLE (L) ASSY, REEL	
209	X-3319-627-1	TABLE (L) (CB) ASSY, REEL	
210	3-319-614-01	SPRING	
211	3-319-694-01	SPRING, TENSION	
212	3-575-346-01	FELT, BREKE	
213	*3-319-611-01	LEVER (LEFT), BACK TENSION	
214	3-319-670-01	HOLDER, SWITCH, DETECTION	
215	3-319-603-01	LEVER, REC DETECTION	
216	3-319-604-01	LEVER, HALF DETECTION	
217	3-319-602-01	SPRING	
218	3-319-669-01	LEVER, EJECT	
219	3-312-432-00	SPRING, TENSION	
220	*3-319-678-01	LEVER, SWITCH LIFT	
221	3-307-394-00	RETAINER (B), THRUST	
222	3-575-332-00	GEAR, FR	

No.	Part No.	Description	Remarks
223	3-575-324-00	GEAR, LIMITER	
224	3-564-027-11	FELT, LIMITER	
225	3-575-304-00	SHAFT, GEAR, FR	
226	3-575-457-00	PLATE (B), SHIELD, MOTOR	
227	*3-319-615-01	LEVER (RIGHT), BACK TENSION	
228	3-319-650-01	SPRING (R)	
229	*3-319-652-01	PLATE (RIGHT), LIMITER	
230	X-3319-607-1	PINCH LEVER ASSY	
231	3-319-686-01	SPRING, TENSION	
232	3-319-685-01	SPRING, TENSION	
233	3-319-601-01	SPRING	
234	*3-319-653-01	PLATE (LEFT), LIMITER	
235	3-319-651-01	SPRING (L)	
236	7-671-112-01	STEEL BALL	
237	7-671-112-11	BALL, STEEL	
238	7-621-775-50	SCREW +B 2.6X10	
239	7-685-102-21	SCREW +PTP 2.6X4	
240	7-688-002-01	W 2.6, SMALL	
241	7-685-865-01	SCREW +BVTT 2.6X12 (S)	
242	3-531-760-00	CLAW, REEL SPINDLE	
953	*1-612-730-11	PC BOARD, TRANSLATION	
954	*1-613-523-11	PC BOARD, DETECTION SW	
M402	X-3319-612-1	MOTOR ASSY, REEL	

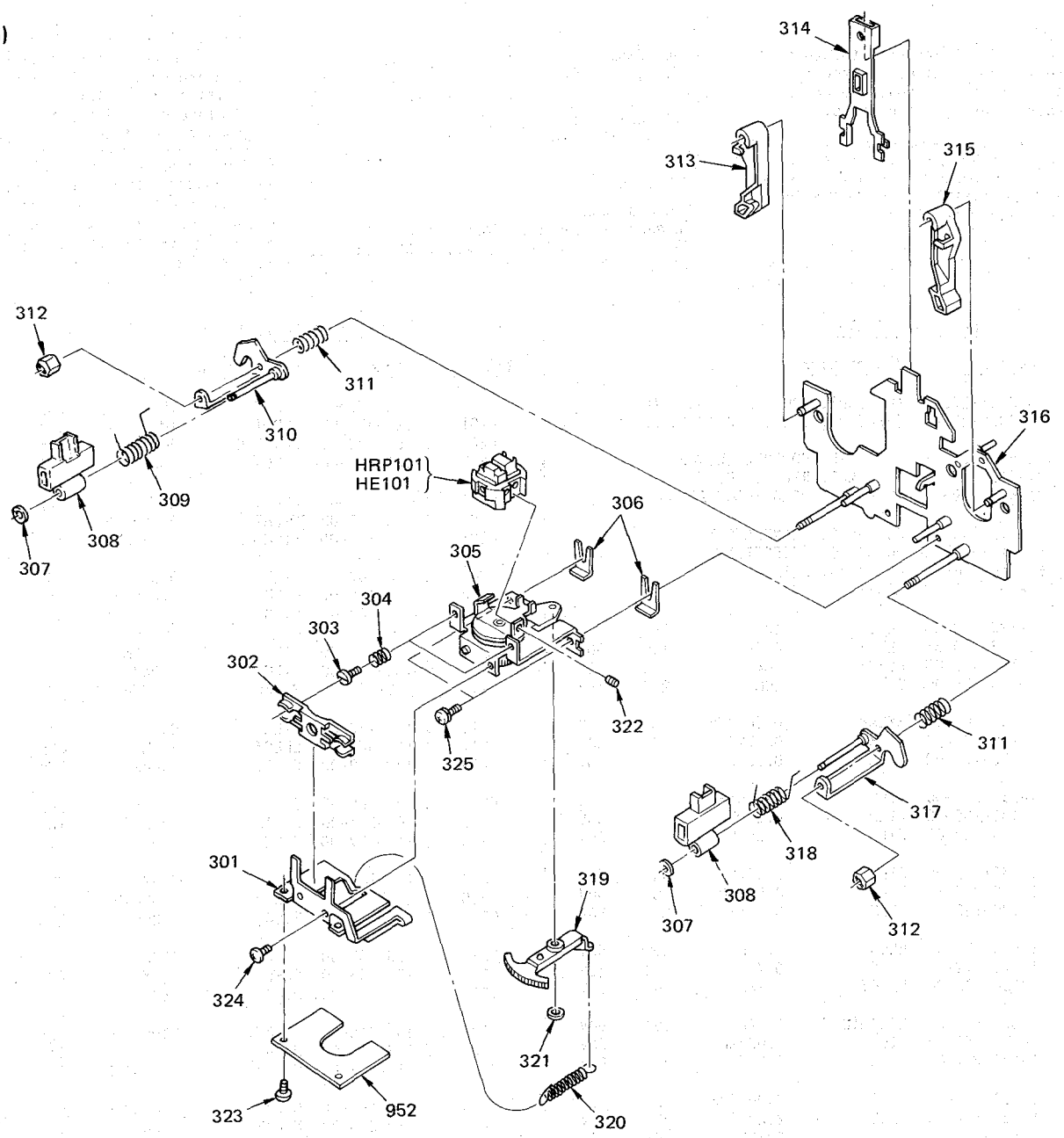
(4)



No.	Part No.	Description	Remarks
251	X-3319-617-1	PULLEY ASSY, MOTOR	
252	3-703-150-11	CLAMP	
253	*3-319-665-01	RETAINER, THRUST	
254	3-319-608-01	RETAINER, THRUST	
255	3-319-630-01	BELT (R), CAPSTAN	
256	X-3319-606-1	FLYWHEEL (T) ASSY	
257	X-3319-601-1	FLYWHEEL ASSY	
258	3-701-438-11	WASHER, 2.5	
259	3-307-482-00	WASHER, LUMILER	
260	3-319-607-01	BUSHING, REEL TABLE	
261	3-319-688-01	GEAR, PAUSE CAM	
262	*3-319-628-01	LEVER, REVERSE TRIGGER	
263	3-319-648-01	SPRING	
264	3-307-394-00	RETAINER (B), THRUST	
265	3-319-674-01	GEAR, REVERSE CAM	
266	*3-319-639-01	BRACKET, TRIGGER PM	
267	*3-319-664-01	SHAFT, CONTROL LEVER	
268	*3-319-683-01	LEVER, CONTROL, TRIGGER	
269	3-307-332-00	ARBOR, FIXED	
270	3-307-333-00	ARBOR, TRIGGER	
271	*3-319-668-01	PLATE, BRAKE	
272	3-319-662-01	RUBBER, BRAKE	
273	3-319-612-01	SPRING	
274	3-319-606-01	SPRING	
275	*X-3319-614-1	LEVER ASSY, PAUSE	
276	3-555-124-00	SPRING, TENSION	
277	3-319-637-01	SPRING (R)	
278	*X-3319-615-1	LEVER ASSY, FWD LOCK	

No.	Part No.	Description	Remarks
279	3-319-649-01	SPRING	
280	3-319-666-01	LEVER (RIGHT), REC DETECTION	
281	3-319-633-01	SPRING	
282	X-3319-611-1	CHASSIS ASSY, MECHANICAL	
283	*3-319-676-01	LEVER, FWD	
284	*3-319-681-01	SLIDER, REVERSE	
285	*3-319-658-01	LEVER, TRIGGER KICK	
286	3-319-660-01	SPRING	
287	3-319-689-01	GEAR, FWD CAM	
288	7-628-253-05	SCREW +PS 2X4	
289	7-623-106-01	W 2.3, SMALL	
290	7-685-879-01	SCREW +BVTT 3X30 (S)	
291	7-685-646-21	SCREW +PVTP 3X8 TYPE2 N-S	
292	7-687-204-11	TOTSU PTPWH 2X6 NON-SLIT,TYPE2	
293	7-685-850-01	SCREW +BVTT 2X3 (S)	
294	7-685-792-01	SCREW +PTT 2.6X5	
295	7-621-733-08	SET-SCT, HEX 2X4 FLAT POINT	
951	*1-612-727-11	PC BOARD, REC DETECT	
955	*1-614-396-11	PC BOARD, SLIDE SW	
956	1-452-202-00	MAGNET	
M401	1-541-239-00	MOTOR, CAPSTAN	
PM401	1-454-316-00	SOLENOID, PLUNGER	
PM402	1-454-316-00	SOLENOID, PLUNGER	
PM403	1-454-374-11	SOLENOID, PLUNGER	
S413	1-554-410-00	SWITCH, LEAF	

(5)



No.	Part No.	Description	Remarks
301	3-319-620-01	PLATE, ORNAMENTAL, HEAD	
302	3-319-644-01	STOPPER	
303	3-319-663-01	SCREW, ADJUSTMENT, AZIMUTH	
304	3-307-460-00	SPRING, COMPRESSION	
305	X-3319-613-1	BRACKET COMPLETE ASSY, HEAD	
306	3-307-477-01	SEAM (A), HEAD ADJUSTMENT	
	3-307-477-11	SEAM (A), HEAD ADJUSTMENT	
	3-307-477-21	SEAM (A), HEAD ADJUSTMENT	
	3-307-477-31	SEAM (A), HEAD ADJUSTMENT	
	3-307-477-41	SEAM (A), HEAD ADJUSTMENT	
307	3-307-394-00	RETAINER (B), THRUST	
308	3-306-269-01	GUIDE, TAPE	
309	3-306-249-00	SPRING (LEFT)	
310	*X-3319-609-1	LEVER (LEFT) ASSY, GUIDE	
311	3-537-215-00	SPRING, COMPRESSION	

No.	Part No.	Description	Remarks
312	3-319-638-01	NUT, ADJUSTMENT	
313	3-319-643-01	LEVER (L), P ROLLER SELECTION	
314	3-319-684-01	PROTECTOR, EDGE	
315	3-319-642-01	LEVER (R), P ROLLER SELECTION	
316	*X-3319-610-1	CHASSIS ASSY, REVERSE HEAD	
317	*X-3319-608-1	LEVER (RIGHT) ASSY, GUIDE	
318	3-306-250-00	SPRING (RIGHT)	
319	3-319-625-01	GEAR, ROTARY HEAD	
320	3-306-258-01	SPRING, TENSION	
321	7-624-102-04	STOP RING 1.5	
322	7-621-710-26	SET-SCREW, SLOT 2X3 FLAT POINT	
323	7-685-850-01	SCREW +BVTT 2X3 (S)	
324	7-627-553-17	SCREW, PRECISION +P 2X2	
325	7-628-253-05	SCREW +PS 2X4	
952	*1-612-729-11	PC BOARD, HEAD TRANSLATION	
HE101	X-3319-616-1	HEAD UNIT ASSY	
HRP101	X-3319-616-1	HEAD UNIT ASSY	

SECTION 6
ELECTRICAL PARTS LIST

NOTE:
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuitsin a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF:μF, PF:μμF.

RESISTORS
- All resistors are in ohms.
- F : nonflammable

COILS
- MMH : mH, UH : μH

SEMICONDUCTORS
In each case, U : μ, for example:
UA...: μA..., UPA...: μPA..., UPC...: μPC, UPD...: μPD...

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
901	*A-2056-275-A	(FX420R)...PC BOARD ASSY, AUDIO			
	*A-2056-276-A	(FX422R)...PC BOARD ASSY, AUDIO			
902	*1-615-664-11	PC BOARD, CONTROL SWITCH			
951	*1-612-727-11	PC BOARD, REC DETECT			
952	*1-612-729-11	PC BOARD, HEAD TRANSLATION			
953	*1-612-730-11	PC BOARD, TRANSLATION			
954	*1-613-523-11	PC BOARD, DETECTION SW			
955	*1-614-396-11	PC BOARD, SLIDE SW			
956	1-452-202-00	MAGNET			
C101	1-123-380-00	ELECT	1MF	20%	50V
C102	1-162-290-31	CERAMIC	470PF	10%	50V
C103	1-123-380-00	ELECT	1MF	20%	50V
C104	1-123-356-00	ELECT	10MF	20%	16V
C105	1-110-203-00	MYLAR	0.0047MF	5%	50V
C106	1-136-173-00	FILM	0.47MF	5%	50V
C107	1-136-167-00	FILM	0.15MF	5%	50V
C108	1-136-155-00	FILM	0.015MF	5%	50V
C109	1-136-169-00	FILM	0.22MF	5%	50V
C110	1-136-163-00	FILM	0.068MF	5%	50V
C111	1-136-161-00	FILM	0.047MF	5%	50V
C112	1-110-205-00	MYLAR	0.0068MF	5%	50V
C113	1-136-153-00	FILM	0.01MF	5%	50V
C114	1-123-369-00	ELECT	4.7MF	20%	50V
C115	1-123-379-00	ELECT	0.47MF	20%	50V
C116	1-124-185-00	ELECT	4.7MF	20%	50V
C117	1-161-321-00	CERAMIC	680PF	10%	50V
C118	1-136-157-00	FILM	0.022MF	5%	50V
C119	1-124-184-00	ELECT	3.3MF	20%	50V
C120	1-110-203-00	MYLAR	0.0047MF	5%	50V
C122	1-123-381-00	ELECT	2.2MF	20%	50V
C123	1-123-330-00	ELECT	22MF	20%	16V
C124	1-124-185-00	ELECT	4.7MF	20%	50V
C125	1-107-036-00	MICA	68PF	5%	500V
C126	1-161-318-00	CERAMIC	390PF	10%	50V
C127	1-107-159-00	MICA	33PF	5%	500V
C128	1-110-206-00	MYLAR	0.0082MF	5%	50V
C129	1-110-199-00	MYLAR	0.0022MF	5%	50V
C130	1-110-203-00	MYLAR	0.0047MF	5%	50V
C131	1-136-157-00	FILM	0.022MF	5%	50V
C132	1-136-161-00	FILM	0.047MF	5%	50V
C133	1-123-380-00	ELECT	1MF	20%	50V
C134	1-123-381-00	ELECT	2.2MF	20%	50V
C135	1-123-380-00	ELECT	1MF	20%	50V
C136	1-123-356-00	ELECT	10MF	20%	16V
C137	1-162-282-31	CERAMIC	100PF	10%	50V
C138	1-162-302-31	CERAMIC	0.0022MF	30%	16V
C139	1-161-330-00	CERAMIC	0.01MF	30%	25V

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C140	1-162-282-00	CERAMIC	100PF	10%	50V
C201	1-123-380-00	ELECT	1MF	20%	50V
C202	1-162-290-31	CERAMIC	470PF	10%	50V
C203	1-123-380-00	ELECT	1MF	20%	50V
C204	1-123-356-00	ELECT	10MF	20%	16V
C205	1-110-203-00	MYLAR	0.0047MF	5%	50V
C206	1-136-173-00	FILM	0.47MF	5%	50V
C207	1-136-167-00	FILM	0.15MF	5%	50V
C208	1-136-155-00	FILM	0.015MF	5%	50V
C209	1-136-169-00	FILM	0.22MF	5%	50V
C210	1-136-163-00	FILM	0.068MF	5%	50V
C211	1-136-161-00	FILM	0.047MF	5%	50V
C212	1-110-205-00	MYLAR	0.0068MF	5%	50V
C213	1-136-153-00	FILM	0.01MF	5%	50V
C214	1-123-369-00	ELECT	4.7MF	20%	50V
C215	1-123-379-00	ELECT	0.47MF	20%	50V
C216	1-124-185-00	ELECT	4.7MF	20%	50V
C217	1-161-321-00	CERAMIC	680PF	10%	50V
C218	1-136-157-00	FILM	0.022MF	5%	50V
C219	1-124-184-00	ELECT	3.3MF	20%	50V
C220	1-110-203-00	MYLAR	0.0047MF	5%	50V
C222	1-123-381-00	ELECT	2.2MF	20%	50V
C223	1-123-330-00	ELECT	22MF	20%	16V
C224	1-124-185-00	ELECT	4.7MF	20%	50V
C225	1-107-036-00	MICA	68PF	5%	500V
C226	1-161-318-00	CERAMIC	390PF	10%	50V
C227	1-107-159-00	MICA	33PF	5%	500V
C228	1-110-206-00	MYLAR	0.0082MF	5%	50V
C229	1-110-199-00	MYLAR	0.0022MF	5%	50V
C230	1-110-203-00	MYLAR	0.0047MF	5%	50V
C231	1-136-157-00	FILM	0.022MF	5%	50V
C232	1-136-161-00	FILM	0.047MF	5%	50V
C233	1-123-380-00	ELECT	1MF	20%	50V
C234	1-123-381-00	ELECT	2.2MF	20%	50V
C235	1-123-380-00	ELECT	1MF	20%	50V
C236	1-123-356-00	ELECT	10MF	20%	16V
C237	1-162-282-31	CERAMIC	100PF	10%	50V
C238	1-162-302-31	CERAMIC	0.0022MF	30%	16V
C239	1-161-330-00	CERAMIC	0.01MF	30%	25V
C240	1-162-282-31	CERAMIC	100PF	10%	50V
C301	1-123-356-00	ELECT	10MF	20%	16V
C302	1-123-356-00	ELECT	10MF	20%	16V
C303	1-123-381-00	ELECT	2.2MF	20%	50V
C311	1-123-356-00	ELECT	10MF	20%	16V
C312	1-129-714-00	FILM	0.01MF	10%	630V
C313	1-130-289-00	FILM	0.0047MF	5%	100V
C314	1-130-285-00	FILM	0.0033MF	5%	100V

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C315	1-130-285-00	FILM	0.0033MF	5%	100V
C316	1-123-381-00	ELECT	2.2MF	20%	50V
C317	1-123-379-00	ELECT	0.47MF	20%	50V
C318	1-123-306-00	ELECT	47MF	20%	10V
C320	1-123-369-00	ELECT	4.7MF	20%	50V
C321	1-123-356-00	ELECT	10MF	20%	16V
C322	1-161-330-00	CERAMIC	0.01MF	30%	25V
C323	1-162-306-31	CERAMIC	0.01MF	30%	16V
C324	1-162-113-00	CERAMIC	0.01MF	30%	16V
C401	1-110-206-00	MYLAR	0.0082MF	5%	50V
C402	1-123-381-00	ELECT	2.2MF	20%	50V
C403	1-162-284-31	CERAMIC	150PF	10%	50V
C404	1-162-284-31	CERAMIC	150PF	10%	50V
C406	1-162-294-31	CERAMIC	0.001MF	10%	50V
C407	1-123-380-00	ELECT	1MF	20%	50V
C410	1-123-356-00	ELECT	10MF	20%	16V
C411	1-123-356-00	ELECT	10MF	20%	16V
C412	1-123-306-00	ELECT	47MF	20%	10V
C415	1-123-322-00	ELECT	330MF	20%	16V
C416	1-162-113-00	CERAMIC	0.01MF	30%	16V
C417	1-162-113-00	CERAMIC	0.01MF	30%	16V
C418	1-162-113-00	CERAMIC	0.01MF	30%	16V
C501	1-123-311-00	ELECT	1000MF	20%	10V
C503	1-123-318-00	ELECT	33MF	20%	16V
C504	1-123-324-00	ELECT	1000MF	20%	16V
C505	1-123-310-00	ELECT	470MF	20%	10V
C506	1-123-318-00	ELECT	33MF	20%	16V
C507	1-123-324-00	ELECT	1000MF	20%	16V
CN301	*1-564-509-11	PLUG, CONNECTOR 6P			
CN302	*1-564-505-11	PLUG, CONNECTOR 2P			
CN401	*1-564-511-11	PLUG, CONNECTOR 8P			
CN403	*1-564-505-31	PLUG, CONNECTOR 2P			
CN404	*1-564-337-00	PIN, CONNECTOR 3P			
CN405	*1-564-336-00	PIN, CONNECTOR 2P			
CN406	*1-564-508-11	PLUG, CONNECTOR 5P			
CN407	*1-564-507-11	PLUG, CONNECTOR 4P			
CN408	*1-564-505-11	PLUG, CONNECTOR 2P			
CN409	*1-564-340-00	PIN, CONNECTOR 6P			
CN410	*1-560-280-00	CONNECTOR PIN 3P			
CN411	*1-560-039-00	PIN, CONNECTOR			
CN412	*1-560-039-00	PIN, CONNECTOR			
⚠ CNP501	1-534-817-XX	(AEP).....CORD, POWER			
⚠ CNP501	1-551-472-00	(E).....CORD, POWER			
⚠ CNP501	1-551-628-00	(US,Canadian)...CORD, POWER			
⚠ CNP501	1-551-884-00	(UK).....CORD, POWER			
⚠ CNP502	1-526-565-00	(E)...AC PLUG ADAPTOR			
CT101	1-141-225-00	CAP, TUNING, TRIMMER			
CT201	1-141-225-00	CAP, TUNING, TRIMMER			
D101	1-806-967-11	DIODE (LED BLOCK)			
D102	1-806-968-11	DIODE (LED BLOCK)			
D201	1-806-967-11	DIODE (LED BLOCK)			
D202	1-806-968-11	DIODE (LED BLOCK)			
D301	8-719-107-94	DIODE 1SS202-1			
D302	8-719-107-94	DIODE 1SS202-1			
D401	8-719-107-94	DIODE 1SS202-1			
D402	8-719-107-94	DIODE 1SS202-1			
D404	8-719-107-94	DIODE 1SS202-1			

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
D405	8-719-107-94	DIODE 1SS202-1			
D406	8-719-107-94	DIODE 1SS202-1			
D407	8-719-107-94	DIODE 1SS202-1			
D411	8-719-915-51	DIODE GL-9PG4			
D412	8-719-919-04	DIODE GL-9PR4			
D413	8-719-915-50	DIODE GL-9HY4			
D414	8-719-907-36	DIODE GL-5EG22			
D415	8-719-907-36	DIODE GL-5EG22			
D416	8-719-107-94	DIODE 1SS202-1			
D418	8-719-107-94	DIODE 1SS202-1			
D419	8-719-910-66	DIODE HZ6B3L			
D420	8-719-200-23	DIODE 11E2			
D501	8-719-910-63	DIODE HZ6A3L			
D502	8-719-200-23	DIODE 11E2			
D503	8-719-200-23	DIODE 11E2			
D504	8-719-200-23	DIODE 11E2			
D505	8-719-200-23	DIODE 11E2			
F101	1-231-388-00	FILTER, LOW PASS			
F102	1-235-186-00	ENCAPSULATED COMPONENT			
F201	1-231-388-00	FILTER, LOW PASS			
F202	1-235-186-00	ENCAPSULATED COMPONENT			
FR501⚠	1-217-422-00	FUSIBLE	1	5%	1/2W F
FR502⚠	1-217-422-00	FUSIBLE	1	5%	1/2W F
HE101	X-3319-616-1	HEAD UNIT ASSY			
HRP101	X-3319-616-1	HEAD UNIT ASSY			
IC101	8-759-912-79	IC IR2E02			
IC201	8-759-912-79	IC IR2E02			
IC301	8-759-600-02	IC M5218L			
IC302	8-752-018-70	IC CX20187			
IC303	8-759-600-02	IC M5218L			
IC304	8-759-101-55	IC CX10032A			
IC401	8-759-204-45	IC TC9312N-002			
IC402	8-759-602-47	IC M50761-417P			
J101	1-507-909-11	JACK, PIN 4P			
J102	1-507-909-11	JACK, PIN 4P			
J201	1-507-909-11	JACK, PIN 4P			
J202	1-507-909-11	JACK, PIN 4P			
J301	1-507-797-21	JACK, LARGE TYPE			
J302	1-507-982-11	JACK (LARGE TYPE)			
L101	1-408-923-00	MICRO INDUCTOR 8.2MMH			
L102	1-408-930-00	MICRO INDUCTOR 33MMH			
L201	1-408-923-00	MICRO INDUCTOR 8.2MMH			
L202	1-408-930-00	MICRO INDUCTOR 33MMH			
M401	1-541-239-00	MOTOR, CAPSTAN			
M402	X-3319-612-1	MOTOR ASSY, REEL			
PM401	1-454-316-00	SOLENOID, PLUNGER			
PM402	1-454-316-00	SOLENOID, PLUNGER			
PM403	1-454-374-11	SOLENOID, PLUNGER			
PI401	8-719-902-90	PHOTO INTERRUPTOR SPI201-20			
Q101	8-729-102-03	TRANSISTOR 2SD1020			
Q102	8-729-900-80	TRANSISTOR DTC114ES			
Q103	8-729-606-33	TRANSISTOR 2SC2603-F			
Q104	8-729-606-33	TRANSISTOR 2SC2603-F			
Q201	8-729-102-03	TRANSISTOR 2SD1020			
Q202	8-729-900-80	TRANSISTOR DTC114ES			
Q203	8-729-606-33	TRANSISTOR 2SC2603-F			
Q204	8-729-606-33	TRANSISTOR 2SC2603-F			

ELECTRICAL PARTS

Ref.No.	Part No.	Description
Q301	8-729-194-57	TRANSISTOR 2SC945-P
Q302	8-729-194-57	TRANSISTOR 2SC945-P
Q303	8-729-606-33	TRANSISTOR 2SC2603-F
Q304	8-729-900-80	TRANSISTOR DTA114ES
Q305	8-729-900-80	TRANSISTOR DTA114ES
Q306	8-729-606-33	TRANSISTOR 2SC2603F
Q307	8-729-117-54	TRANSISTOR 2SA1175
Q401	8-729-900-80	TRANSISTOR DTC114ES
Q402	8-729-900-65	TRANSISTOR DTA114ES
Q403	8-729-900-80	TRANSISTOR DTC114ES
Q404	8-729-900-80	TRANSISTOR DTC114ES
Q405	8-729-117-54	TRANSISTOR 2SA1175
Q407	8-729-800-83	TRANSISTOR 2SB808
Q408	8-729-800-83	TRANSISTOR 2SB808
Q409	8-729-177-43	TRANSISTOR 2SD774
Q410	8-729-177-43	TRANSISTOR 2SD774
Q411	8-729-900-80	TRANSISTOR DTC114ES
Q412	8-729-177-43	TRANSISTOR 2SD774
Q413	8-729-117-54	TRANSISTOR 2SA1175
Q414	8-729-800-83	TRANSISTOR 2SB808
Q415	8-729-900-80	TRANSISTOR DTC114ES
Q417	8-729-900-80	TRANSISTOR DTC114ES
Q418	8-729-900-80	TRANSISTOR DTC114ES
Q419	8-729-900-85	TRANSISTOR DTA144WS
Q501	8-729-180-92	TRANSISTOR 2SD809-K
Q502	8-729-606-33	TRANSISTOR 2SC2603-F
Q503	8-729-173-13	TRANSISTOR 2SB731
Q504	8-729-117-54	TRANSISTOR 2SA1175
Q505	8-729-811-24	TRANSISTOR 2SD1012
Q506	8-729-800-83	TRANSISTOR 2SB808
R101	1-247-867-00	CARBON 33K 5% 1/6W
R103	1-247-855-00	CARBON 10K 5% 1/6W
R104	1-247-819-00	CARBON 330 5% 1/6W
R105	1-247-865-00	CARBON 27K 5% 1/6W
R106	1-247-871-00	CARBON 47K 5% 1/6W
R107	1-247-843-00	CARBON 3.3K 5% 1/6W
R108	1-247-851-00	CARBON 6.8K 5% 1/6W
R109	1-247-822-00	CARBON 430 5% 1/6W
R110	1-247-847-00	CARBON 4.7K 5% 1/6W
R111	1-247-840-00	CARBON 2.4K 5% 1/6W
R112	1-247-851-00	CARBON 6.8K 5% 1/6W
R113	1-247-827-00	CARBON 680 5% 1/6W
R114	1-249-421-11	CARBON 2.2K 5% 1/6W
R115	1-247-855-00	CARBON 10K 5% 1/6W
R116	1-247-849-00	CARBON 5.6K 5% 1/6W
R117	1-247-863-00	CARBON 22K 5% 1/6W
R118	1-249-421-11	CARBON 2.2K 5% 1/6W
R119	1-249-421-11	CARBON 2.2K 5% 1/6W
R120	1-247-831-00	CARBON 1K 5% 1/6W
R121	1-247-833-00	CARBON 1.2K 5% 1/6W
R122	1-249-421-11	CARBON 2.2K 5% 1/6W
R123	1-247-840-00	CARBON 2.4K 5% 1/6W
R124	1-247-116-00	CARBON 240 5% 1/4W
R125	1-247-164-00	CARBON 24K 5% 1/4W

ELECTRICAL PARTS

Ref.No.	Part No.	Description
R126	1-247-107-00	CARBON 100 5% 1/4W
R127	1-246-524-00	CARBON 130K 5% 1/4W
R128	1-247-148-00	CARBON 5.1K 5% 1/4W
R129	1-247-863-00	CARBON 22K 5% 1/6W
R130	1-247-857-00	CARBON 12K 5% 1/6W
R131	1-247-858-00	CARBON 13K 5% 1/6W
R132	1-247-887-00	CARBON 220K 5% 1/6W
R133	1-247-821-00	CARBON 390 5% 1/6W
R135	1-247-831-00	CARBON 1K 5% 1/6W
R136	1-247-879-00	CARBON 100K 5% 1/6W
R137	1-247-857-00	CARBON 12K 5% 1/6W
R140	1-247-837-00	CARBON 1.8K 5% 1/6W
R141	1-247-807-00	CARBON 100 5% 1/6W
R142	1-247-842-00	CARBON 3K 5% 1/6W
R143	1-247-859-00	CARBON 15K 5% 1/6W
R144	1-247-861-00	CARBON 18K 5% 1/6W
R145	1-247-853-00	CARBON 8.2K 5% 1/6W
R146	1-247-879-00	CARBON 100K 5% 1/6W
R147	1-247-861-00	CARBON 18K 5% 1/6W
R148	1-247-878-00	CARBON 91K 5% 1/6W
R149	1-247-879-00	CARBON 100K 5% 1/6W
R150	1-247-855-00	CARBON 10K 5% 1/6W
R151	1-247-855-00	CARBON 10K 5% 1/6W
R153	1-247-879-00	CARBON 100K 5% 1/6W
R154	1-247-855-00	CARBON 10K 5% 1/6W
R155	1-247-841-00	CARBON 2.7K 5% 1/6W
R201	1-247-867-00	CARBON 33K 5% 1/6W
R203	1-247-855-00	CARBON 10K 5% 1/6W
R204	1-247-819-00	CARBON 330 5% 1/6W
R205	1-247-865-00	CARBON 27K 5% 1/6W
R206	1-247-871-00	CARBON 47K 5% 1/6W
R207	1-247-843-00	CARBON 3.3K 5% 1/6W
R208	1-247-851-00	CARBON 6.8K 5% 1/6W
R209	1-247-822-00	CARBON 430 5% 1/6W
R210	1-247-847-00	CARBON 4.7K 5% 1/6W
R211	1-247-840-00	CARBON 2.4K 5% 1/6W
R212	1-247-851-00	CARBON 6.8K 5% 1/6W
R213	1-247-827-00	CARBON 680 5% 1/6W
R214	1-249-421-11	CARBON 2.2K 5% 1/6W
R215	1-247-855-00	CARBON 10K 5% 1/6W
R216	1-247-849-00	CARBON 5.6K 5% 1/6W
R217	1-247-863-00	CARBON 22K 5% 1/6W
R218	1-249-421-11	CARBON 2.2K 5% 1/6W
R219	1-249-421-11	CARBON 2.2K 5% 1/6W
R220	1-247-831-00	CARBON 1K 5% 1/6W
R221	1-247-833-00	CARBON 1.2K 5% 1/6W
R222	1-249-421-11	CARBON 2.2K 5% 1/6W
R223	1-247-840-00	CARBON 2.4K 5% 1/6W
R224	1-247-116-00	CARBON 240 5% 1/4W
R225	1-247-164-00	CARBON 24K 5% 1/4W
R226	1-247-107-00	CARBON 100 5% 1/4W
R227	1-246-524-00	CARBON 130K 5% 1/4W
R228	1-247-148-00	CARBON 5.1K 5% 1/4W
R229	1-247-863-00	CARBON 22K 5% 1/6W
R230	1-247-857-00	CARBON 12K 5% 1/6W
R231	1-247-858-00	CARBON 13K 5% 1/6W
R232	1-247-887-00	CARBON 220K 5% 1/6W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R233	1-247-821-00	CARBON	390	5%	1/6W
R235	1-247-831-00	CARBON	1K	5%	1/6W
R236	1-247-879-00	CARBON	100K	5%	1/6W
R237	1-247-857-00	CARBON	12K	5%	1/6W
R240	1-247-837-00	CARBON	1.8K	5%	1/6W
R241	1-247-807-00	CARBON	100	5%	1/6W
R242	1-247-842-00	CARBON	3K	5%	1/6W
R243	1-247-859-00	CARBON	15K	5%	1/6W
R244	1-247-861-00	CARBON	18K	5%	1/6W
R245	1-247-853-00	CARBON	8.2K	5%	1/6W
R246	1-247-879-00	CARBON	100K	5%	1/6W
R247	1-247-861-00	CARBON	18K	5%	1/6W
R248	1-247-878-00	CARBON	91K	5%	1/6W
R249	1-247-879-00	CARBON	100K	5%	1/6W
R250	1-247-855-00	CARBON	10K	5%	1/6W
R251	1-247-855-00	CARBON	10K	5%	1/6W
R253	1-247-879-00	CARBON	100K	5%	1/6W
R254	1-247-855-00	CARBON	10K	5%	1/6W
R255	1-247-841-00	CARBON	2.7K	5%	1/6W
R301	1-247-879-00	CARBON	100K	5%	1/6W
R302	1-247-883-00	CARBON	150K	5%	1/6W
R303	1-247-831-00	CARBON	1K	5%	1/6W
R304	1-247-831-00	CARBON	1K	5%	1/6W
R307	1-247-847-00	CARBON	4.7K	5%	1/6W
R308	1-247-835-00	CARBON	1.5K	5%	1/6W
R309	1-247-775-00	CARBON	4.7	5%	1/6W
R310	1-247-861-00	CARBON	18K	5%	1/6W
R311	1-247-861-00	CARBON	18K	5%	1/6W
R312	1-247-855-00	CARBON	10K	5%	1/6W
R313	1-247-854-00	CARBON	9.1K	5%	1/6W
R314	1-247-845-00	CARBON	3.9K	5%	1/6W
R315	1-247-828-00	CARBON	750	5%	1/6W
R316	1-247-847-00	CARBON	4.7K	5%	1/6W
R317	1-247-879-00	CARBON	100K	5%	1/6W
R318	1-247-843-00	CARBON	3.3K	5%	1/6W
R319	1-247-861-00	CARBON	18K	5%	1/6W
R320	1-247-843-00	CARBON	3.3K	5%	1/6W
R321	1-247-855-00	CARBON	10K	5%	1/6W
R322	1-247-815-00	CARBON	220	5%	1/6W
R323	1-247-823-00	CARBON	470	5%	1/6W
R324	1-247-823-00	CARBON	470	5%	1/6W
R401	1-247-868-00	CARBON	36K	5%	1/6W
R402	1-247-863-00	CARBON	22K	5%	1/6W
R403	1-247-855-00	CARBON	10K	5%	1/6W
R405	1-247-841-00	CARBON	2.7K	5%	1/6W
R406	1-247-903-00	CARBON	1M	5%	1/6W
R408	1-247-861-00	CARBON	18K	5%	1/6W
R409	1-247-857-00	CARBON	12K	5%	1/6W
R410	1-247-861-00	CARBON	18K	5%	1/6W
R411	1-247-807-00	CARBON	100	5%	1/6W
R412	1-247-783-00	CARBON	10	5%	1/6W
R413	1-247-819-00	CARBON	330	5%	1/6W
R414	1-247-879-00	CARBON	100K	5%	1/6W
R415	1-247-855-00	CARBON	10K	5%	1/6W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R425	1-247-831-00	CARBON	1K	5%	1/6W
R426	1-247-831-00	CARBON	1K	5%	1/6W
R427	1-247-821-00	CARBON	390	5%	1/6W
R428	1-247-849-00	CARBON	5.6K	5%	1/6W
R429	1-247-819-00	CARBON	330	5%	1/6W
R430	1-247-831-00	CARBON	1K	5%	1/6W
R431	1-247-831-00	CARBON	1K	5%	1/6W
R432	1-247-835-00	CARBON	1.5K	5%	1/6W
R434	1-247-863-00	CARBON	22K	5%	1/6W
R435	1-247-815-00	CARBON	220	5%	1/6W
R436	1-247-821-00	CARBON	390	5%	1/6W
R437	1-247-821-00	CARBON	390	5%	1/6W
R438	1-247-819-00	CARBON	330	5%	1/6W
R439	1-247-863-00	CARBON	22K	5%	1/6W
R440	1-247-855-00	CARBON	10K	5%	1/6W
R441	1-247-851-00	CARBON	6.8K	5%	1/6W
R442	1-247-855-00	CARBON	10K	5%	1/6W
R445	1-247-879-00	CARBON	100K	5%	1/6W
R446	1-247-831-00	CARBON	1K	5%	1/6W
R501	1-247-143-00	CARBON	3.3K	5%	1/4W
R502	1-247-125-00	CARBON	560	5%	1/4W
R503	1-247-131-00	CARBON	1K	5%	1/4W
R504	1-247-131-00	CARBON	1K	5%	1/4W
R505	1-247-141-00	CARBON	2.7K	5%	1/4W
R506	1-247-131-00	CARBON	1K	5%	1/4W
R507	1-247-131-00	CARBON	1K	5%	1/4W
R508	1-247-133-00	CARBON	1.2K	5%	1/4W
RV101	1-230-713-21	RES, VAR, SLIDE 20K/20K (REC LEVEL L)			
RV102	1-228-994-00	RES, ADJ, CARBON 10K			
RV104	1-228-994-00	RES, ADJ, CARBON 10K			
RV201	1-230-713-21	RES, VAR, SLIDE 20K/20K (REC LEVEL R)			
RV202	1-228-994-00	RES, ADJ, CARBON 10K			
RV204	1-228-994-00	RES, ADJ, CARBON 10K			
RY301	1-515-547-11	RELAY			
S301	1-570-253-11	SWITCH, PUSH (DOLBY NR B/C)			
S302	1-570-253-11	SWITCH, PUSH (DOLBY NR ON/OFF)			
S303	1-570-253-11	SWITCH, PUSH (TAPE 1)			
S304	1-570-253-11	SWITCH, PUSH (TAPE II)			
S305	1-570-253-11	SWITCH, PUSH (TAPE IV)			
S401	1-553-856-00	SWITCH, KEY BOARD			
S402	1-553-856-00	SWITCH, KEY BOARD			
S403	1-553-856-00	SWITCH, KEY BOARD			
S404	1-554-303-00	SWITCH, KEY BOARD (◀)			
S405	1-554-303-00	SWITCH, KEY BOARD (●)			
S406	1-554-303-00	SWITCH, KEY BOARD (▶)			
S407	1-554-303-00	SWITCH, KEY BOARD (◀◀)			
S408	1-554-303-00	SWITCH, KEY BOARD (▶▶)			
S409	1-554-303-00	SWITCH, KEY BOARD (❚❚)			
S410	1-554-303-00	SWITCH, KEY BOARD (○)			
S411	1-554-303-00	SWITCH, KEY BOARD (■)			
S412	1-570-253-11	SWITCH, PUSH (REVERSE MODE)			
S413	1-554-410-00	SWITCH, LEAF			
S414	1-554-883-11	SWITCH, SLIDE			
S501	1-570-103-11	SWITCH, PUSH (POWER)			

ELECTRICAL PARTS

Ref.No.	Part No.	Description
T301	1-433-297-11	TRANSFORMER, BIAS OSCILLATION
T501 ⚠	1-448-154-21	(US,Canadian)...TRANSFORMER, POWER
T501 ⚠	1-448-155-21	(AEP,UK)...TRANSFORMER, POWER
T501 ⚠	1-448-156-21	(E).....TRANSFORMER, POWER
VS501 ⚠	1-570-307-11	(E)...SWITCH, VOLTAGE CHANGE
X401	1-527-532-00	OSCILLATOR, CERAMIC

ACCESSORY & PACKING MATERIAL

Part No.	Description
1-551-734-11	(FX420R)...CORD, CONNECTION (RK-74A)
1-556-372-41	CORD, CONNECTION (4 CORE)
3-318-958-01	CUSHION (LEFT), LOWER
3-318-959-01	CUSHION (RIGHT), LOWER
3-318-960-01	CUSHION (LEFT), UPPER
3-318-961-01	CUSHION (RIGHT), UPPER
3-318-988-11	(FX420R)...INDIVIDUAL CARTON
3-318-988-21	(FX422R)...INDIVIDUAL CARTON
3-701-630-00	BAG, POLYETHYLENE
3-703-895-01	(FX420R:BLACK)....LABEL, COLOR
3-703-906-01	(FX420R:SILVER)...LABEL, COLOR
3-760-543-11	(Canadian,AEP,UK,E)...MANUAL, INSTRUCTION
3-760-543-21	(US)....MANUAL, INSTRUCTION
3-760-543-41	(AEP)...MANUAL, INSTRUCTION
4-876-352-00	SHEET, PROTECTION

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

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Sony Corporation